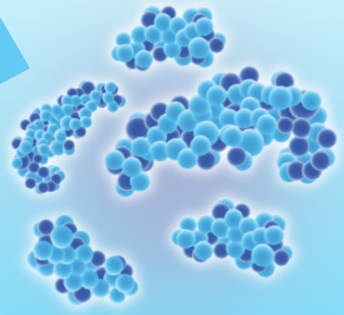
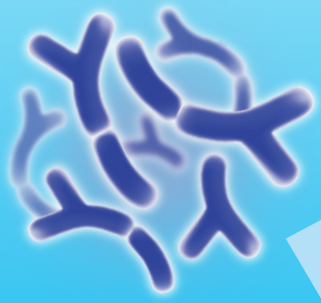
This information is intended for healthcare professionals only

CASE STUDIES
APTAMIL PEPTI SYNEO

A global collection of clinical case studies on the dietary management of cow's milk allergy with **Aptamil Pepti Syneo**

scGOS / lcFOS* fibres





Bifidobacterium breve M-16V

*Short chain galactooligosaccharides / long chain fructooligosaccharides

IMPORTANT NOTICE: Breastfeeding is best. Aptamil Pepti Syneo is a food for special medical purposes for the dietary management of cow's milk allergy. It should only be used under medical supervision, after full consideration of the feeding options available including breastfeeding. Suitable for use as the sole source of nutrition for infants from birth, and/or as part of a balanced diet from 6 months. Refer to label for details.

INTRODUCTION

The gut microbiota is involved in various metabolic processes that regulate gut health and immunity.[1] Over the past decade, there has been mounting interest in the role of the gut microbiome in the development of food allergy.[2-4]

Infancy is an important stage for the establishment and maturation of the gut microbiome.[5] Factors such as gestational age, mode of delivery, antibiotics exposure, environmental exposures, genetics, and feeding method (breast or formula), are known to influence this maturation process.[5]

While the gut microbiota of breastfed infants shows a predominant bifidogenic profile, several studies show an imbalance of the gut microbiota of infants with cow's milk allergy (CMA).[6-10]

Aptamil Pepti Syneo, an extensively hydrolysed formula (EHF), is the latest addition to our range of hypoallergenic formulas for infants with CMA. Aptamil Pepti Syneo contains our unique blend of scGOS/lcFOS and Bifidobacterium breve M16-V (B. breve) that work together synergistically modulate the gut microbiota[11], supporting immune development and long-term health[12–16]. Our SYNEO range is backed by 10 years of research, including studies involving over 1,500 infants.

Clinical studies show that our SYNEO range of hypoallergenic formulas support healthy growth and positively influence the gut microbiota of infants with CMA to support the developing immune system[11,17–20]. Additional outcomes include fewer reports of antibiotic use[17–20^,21†,22], infections[17–20^,21†,22], and hospitalisations due to infections[20^,22], in infants using a hypoallergenic formula with oligosaccharides and B. breve. These preliminary findings are clinically relevant in this group of infants who may be more susceptible to infections[23–25].

This case study booklet contains case studies written by healthcare professionals from different countries. The objective of this booklet is to provide you with real-life, practical insights on the diagnosis and management of infants with CMA. It describes clinical practices of CMA management around the world and the use of Aptamil Pepti Syneo, to complement the extensive evidence available on our Syneo blend from clinical studies.

Each case illustrates different challenges, e.g. history of prematurity, formula acceptance issues, faltering growth, multiple food allergies, experiencing gastrointestinal (GI), dermatologica and respiratory symptoms, and describes the impact of CMA on infants and their families.

We would like to thank all the healthcare professionals for sharing their case studies and for their contributions to this booklet.

1 Yoo JY et al. 2020. 15;8(10):1587. **2** Stephen-Victor E & Chatila TA. Curr Opin Immunol 2019. 60:141–7. **3** Bunyavanich S & Berin MC. J Allergy Clin Immunol 2019. 144:1468–77. **4** Stephen-Victor E et al. Immunity 2020. 53:277–89. **5.** Cheng HY, et al. Allergy. 2022. 3:873168 **6** Canani R et al. ISME J. 2016;(3)742-50 **7** Ling Z et al. Appl Environ Microbiol 2014;80:2546-54. **8** Thompson-Chagoyan OC, et al. Int Arch Allergy Immunol 2011; 156: 325-332 **9** Wopereis H, et al. Pediatr Allergy Immunol. 2014;25:428-38. **10** Soto A, et al. J Pediatr Gastroenterol Nutr. 2014 Jul; 59(1): 78–88 **11** Van der Aa LB et al. Clin Exp Allergy. 2010;(40):795–804 2 **12** Martin R et al. Benef Microbes. 2010. 1(4):367–82. **13** Wopereis H et al. Pediatr Allergy Immunol. 2014. 25:428–38. **14** West CE et al. J Allergy Clin Immunol. 135(1):3–13. **15** Walker WA et al. Pediatr Res. 2015. 77(1):220–228. **16** Van der Aa, LB et al. Allergy. 2011;66:170-177 **17** Burks A et al. Pediatr Allergy Immunol. 2015;26(4):316-22. **18** Candy D et al. Pediatr Res. 2018;83(3):677-86. **19** Fox AT et al. Clin Transl Allergy. 2019;9:5. **20** Chatchatee P et al. J Allergy Clin Immunol. 2021;S0091-6749(21)01053-8. **21** Sorensen K, et al. Nutrients. 2021 Jun 27; 13(7):2205 **22** Sorensen K, et al. Nutrients. 2021 Mar 14; 13(3):935 **23** Zhang Y, et al. PLoS One. 2014;9:e86397 **24** Woicka-Kolejwa K, et al. Postepy Dermatol Alergol. 2016 Apr;33(2):109-13 **25** Meyer R et al. World Allergy Organ J. 2013;6(1):13

^ Exploratory outcomes from randomised control trials, Neocate Syneo vs Neocate LCP;
† UK Observational study of real world evidence in THIN GP database, Neocate Syneo vs Alfamino, Feb 2021

CASE STUDIES OVERVIEW

APTAMIL PEPTI SYNEO

Case study	Short case description	Healthcare professional, profession	Country
Baby A	Infant with atopic dermatitis and feeding difficulties	**Beata Cudowska** Paediatrician/ Allergologist	Poland
Baby B	Infant with Down's syndrome with many hospital visits due to CMA and respiratory symptoms	**Miroslava Petrášová** Pediatric Gastroenterologist	Slovakia
Baby C	Infant with bloody stools after switch to infant formula	**Alfred Tam** Paediatrician	Hong Kong
Baby D	Infant with chronic Food Protein Induced Enterocolitis Syndrome (FPIES)	**Ángela Claver Monzón** Paediatrician	Spain
Baby E	Mixed fed infant with mild symptoms of reflux, intermittent vomiting and eczema	**Lisa Cooke** Specialist Paediatric Dietitian	United Kingdom
Baby F	Infant with severe, immediate allergic reactions	**Diego Peroni** Paediatrician	Italy
Baby G	Challenges with an elimination diet in a breastfed infant	**José Francisco Cadena León** Paediatric Gastroenterologist	Mexico
Baby H	Mixed fed infant with Multiple Food Allergies and severe atopic dermatitis	**María Eugenia Gervasoni** Paediatrician/Allergy Immunologist	Argentina
Baby I	Infant with persistent constipation on a standard eHF	**Catherine Casewell** Specialist Paediatric Dietitian	United Kingdom

SYNEO™ is supported by an extensive clinical study programme

MANAGEMENT OF CMA IN FORMULA FED INFANTS
Extensively Hydrolysed Formula (EHF)

APTAMIL PEPTI SYNEO

Going beyond symptom relief by targeting the gut microbiota

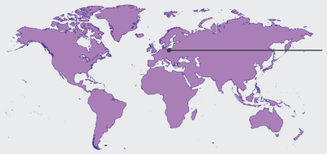
- **Improved constipation and atopic dermatitis symptom relief**[1]
- **Long-term impact on allergy**. Significant reduction in asthma-like symptoms and asthma medication[2]
- **Modulates the gut microbiota by increasing Bifidobacteria levels** and improving metabolic profile[1]

1 Van Der Aa LB, et al. Clin Exp Allergy. 2010.(40) 795–804.
2 Van Der Aa LB, et al. Allergy 2011; 66(2): 170–177

INFANT WITH ATOPIC DERMATITIS AND FEEDING DIFFICULTIES

BABY A

Beata Cudowska Paediatrician/Allergologist
Medical University of Bialystok.



PATIENT PROFILE

Breastfed infant with IgE-mediated cow's milk allergy (CMA), born by caesarean section, saw a significant improvement in her atopic dermatitis and was able to stop steroid cream, as well as having a rapid resolution of her gastrointestinal symptoms, following a switch to Aptamil Pepti Syneo.

- IgE-mediated CMA
- Egg allergy
- Born by caesarean section
- Family history of dust mite allergy
- Symptomatic on breastmilk (mother following elimination diet)
- Dermatological symptoms
- Gastrointestinal symptoms
- Feeding difficulties

BACKGROUND

Baby A was born at full term by caesarean section, weighing 2.7kg, and was breastfed from birth. Baby A's mother has an allergy to dust mites. At two months old baby A presented with itchy skin lesions and was diagnosed with seborrheic dermatitis. Her most severe skin lesions were on her cheeks and forehead and she presented with single erythematous papules on her torso. At three months old, she developed loose, mucus containing stools five to six times a day. Her skin lesions worsened at three months, especially on the cheeks and torso, and she presented with dry and itchy skin all over. At four months, baby A was diagnosed with moderate atopic dermatitis. At six months old baby A presented with feeding difficulties; she refused solid foods and breastfed frequently and irregularly. Baby A was referred onto the allergy department at nine months, due to her symptoms and their lack of improvement with dietary and pharmacological interventions.

MANAGEMENT

At two months old, baby A's skin lesions were treated with topical emollients and creams containing hydrocortisone, antibiotics and antifungals. These pharmacological interventions resulted in partial and temporary improvement to her skin. It was suspected that baby A had CMA. Her mother was advised to eliminate milk from her diet, however this elimination diet was discontinued after two weeks, as there was no improvement in baby A's symptoms.

At three months, following the worsening of baby A's skin lesions, emollients and a combination of topical steroids and antibiotics were used. Baby A continued to be breastfed and her mother re-started her milk-free diet, as well as excluding eggs, nuts and corn. At four months, baby A had the presence of specific IgE antibodies to milk (0.24 kU/L) and her mother was recommended to continue breastfeeding while following a milk-free diet. Complementary feeding, with meat, fruit and vegetables was initiated at six months, and the exacerbation of baby A's skin lesions continued. Baby A was examined twice by allergy doctors, at six and seven months, due to her exacerbated skin lesions.

At nine months, after being referred to the allergy department, baby A scored 45 on the SCORAD (SCORing Atopic Dermatitis) tool, and her diagnosis.

MANAGEMENT (CONT.)

of atopic dermatitis was confirmed[1]. Baby A had multiple allergy tests: Her total IgE level was high (374 kU/L), and she had positive specific IgE antibodies to milk (1.4 kU/L), beta-lactoglobulin (0.45 kU/L) and chicken egg white (8.3 kU/L). Baby A also tested positive for methicillin-resistant *Staphylococcus aureus* (MRSA).

FOLLOW UP CARE

At nine months, baby A's mother was advised to continue eliminate milk, chickens eggs and corn from her diet and reduce breastfeeding to three times a day. To regulate baby A's milk intake and ensure she had an adequate protein and calorie intake, the addition of 180ml of **Aptamil Pepti Syneo** one to two times per day was recommended. **Aptamil Pepti Syneo** was decided on for multiple reasons including the atopic dermatitis symptoms and baby A's risk factors for a disrupted gut microbiota; MRSA and being born by cesarean section.

Given baby A's feeding difficulties and her mothers' reluctance to continue on a strict elimination diet, breastfeeding was discontinued. 180ml of **Aptamil Pepti Syneo** was commenced three to four times a day alongside meals and grain products. After four days, baby A began to pass normal stools without mucus and after a week her appetite had improved. After two weeks, the severity of her skin lesions significantly reduced; her SCORAD score fell to 15, indicating mild atopic dermatitis. Baby A continued to use topical emollients, but was able to stop her steroid cream. Any exacerbations in her skin condition were usually triggered by environmental factors such as temperature.

At her follow up appointment, at ten months old, baby A was taking 500ml of **Aptamil Pepti Syneo** per day and tolerating it well. She now willingly ate her meals and was growing normally. At 15 months old an oral food challenge to baked milk, under clinical supervision, indicated good tolerance of heat treated cow's milk proteins. At this point, **Aptamil Pepti Syneo** was reduced to 200-300ml/day.

At 18 months, Baby A had a follow up visit and showed a reduction in her specific IgE antibody levels to milk. At two years old, baby A has stopped **Aptamil Pepti Syneo** and receives products containing cow's milk. She continued to be allergic to eggs and excluded these from the diet.

> *"After four days, baby A began to pass normal stools without mucus and after a week her appetite had improved. After two weeks, the severity of her skin lesions significantly reduced. She now willingly ate her meals and was growing normally*

DISCUSSION

The disruption of the gut microbiota is an important factor in the development of allergic diseases and is shown by a decrease in *Bifidobacterium* spp. and an increase in *Clostridium*.

Feeding with extensively hydrolysed formula (eHF) with GOS / FOS and B breve should be considered in CMA infants with risk factors for gut microbiota disorders. In children with atopic dermatitis and IgE-mediated food allergy, especially those up to the age of two years, randomised control trials have shown that using eHF with GOS / FOS and B breve benefits the gut microbiota and reduces atopic dermatitis symptoms[2,3].

CONCLUSION

In this infant with IgE-mediated CMA, the introduction of Aptamil Pepti Syneo had a positive effect on her dermatological and gastrointestinal symptoms, with her SCORAD score decreasing and her stools ceasing to be loose and mucus containing. Commencing Aptamil Pepti Syneo was also an important factor for facilitating the development of baby A's food tolerance.

1 Oranje A. Practical issues on interpretation of scoring atopic dermatitis: SCORAD Index, objective SCORAD, patient-oriented SCORAD and Three-Item Severity score. Current problems in dermatology. 2011; 41:149-155.

2 Van Der Aa LB, et al. Clin Exp Allergy. 2010;(40):795-804.

3 Van Der Aa LB, et al. Allergy. 2011;66(2):170-177.

INFANT WITH DOWN'S SYNDROME WITH MANY HOSPITAL VISITS DUE TO CMA AND RESPIRATORY SYMPTOMS

BABY B

Miroslava Petrášová Paediatric Gastroenterologist
Children's University Hospital Košice

PATIENT PROFILE

Infant with Down's syndrome and non-IgE mediated cow's milk allergy, who switched from a standard infant formula to Aptamil Pepti Syneo, saw a fast resolution of gastrointestinal (GI), respiratory and dermatologic symptoms.

- Non-IgE mediated CMA
- Gastrointestinal symptoms
- Dermatologic symptoms
- Respiratory symptoms
- Infant antibiotic use
- Family history of asthma and CMA

BACKGROUND

Baby B is an infant with Down's syndrome who has a family history of asthma and cow's milk allergy (CMA). As an infant, baby B was prescribed antibiotics and exposed to household smoking. At birth, he was commenced on a standard infant formula. Baby B had GI symptoms of colic and bloating. At three months, he developed wheezing and atopic dermatitis on his face, which subsequently spread. Between age three and five months, baby B had several visits to the emergency room. At five months and two weeks old, baby B's clinical condition worsened, and he developed dehydration and dyspnoea (shortness of breath). He was admitted to hospital following an episode of wheezing, diarrhoea, and dermatitis (predominantly on his face and lower extremities) and was found to have a *Clostridium difficile* infection.

MANAGEMENT

Between three and five months baby B had several visits to the emergency department, without hospital admission, where his wheezing was treated with a combination of bronchodilators, oral and inhaled steroids and/or antibiotics.

Baby B was admitted to hospital at five months and two weeks old, following a worsening of his clinical condition. He was treated with a course of metronidazole, intravenous fluid replacement, inhaled steroids and a combination of bronchodilators. This worsening in baby B's clinical condition was a result of his parents not following the advice given at his out-patient appointments. Baby B's parents' low socio-economic status also had an impact; bronchodilators, antihistamines and other symptomatic agents were only partially or not covered at all by baby B's insurance and therefore were not administered to him.

Baby B scored a 44.3 using the SCORAD (SCORing Atopic Dermatitis) tool[1] and had a negative serum-specific IgE test. A diagnosis of CMA was suspected, and baby B was recommended to switch from his standard infant formula to Aptamil Pepti Syneo, an extensively hydrolysed formula (eHF) with scGOS/lcFOS + B breve M-16V.

1 Oranje A. Practical issues on interpretation of scoring atopic dermatitis: SCORAD Index, objective SCORAD, patient-oriented SCORAD and Three-Item Severity score. Current problems in dermatology. 2011; 41:149-155.

FOLLOW UP CARE

Baby B commenced **Aptamil Pepti Syneo** at five months and two weeks old. He tolerated it well, without any transition period, and it was effective in bringing relief to his allergy symptoms. Within a week, his diarrhoea had ceased and the frequency of his wheezing episodes were significantly reduced. In three weeks, his skin normalised, with his mother reporting decreased redness, dryness and scratching from baby B, and a resultant improvement in his sleep. His reduction in wheezing episodes also lead to a decreased rate of hospitalization. Baby B's stools also normalised after the introduction of **Aptamil Pepti Syneo**. Baby B's diagnosis of CMA was based on the cessation of his symptoms.

Complementary feeding on a strict cow's milk elimination diet was introduced at five months and three weeks old. This introduction occurred during baby B's hospital admission, after his GI symptoms had resolved. However, when baby B was ten months old, against recommendation, his family reintroduced foods with cow's milk protein. Baby B's atopic dermatitis returned, although he didn't have any GI or respiratory symptoms.

At his mothers' request, a provocation test was performed after 4 months (before the recommended six months) following his elimination diet to assess tolerance and he hadn't yet developed tolerance.

> *He tolerated [Aptamil Pepti Syneo] well, without any transition period, and it was effective in bringing relief to his allergy symptoms.*

DISCUSSION

CMA is closely associated with other atopic symptoms. Expert guidelines recommend an eHF or an amino acid formula for children with severe symptoms of CMA, with revaluation every six to twelve months, to assess the child's development of tolerance to cow's milk protein. An early diagnosis of CMA is key in achieving a positive outcome and control symptoms.

> *A reduction in his wheezing episodes also led to a decreased need for hospitalizations.*

CONCLUSION

In this non-breastfed infant, a switch from a standard infant formula to Aptamil Pepti Syneo resulted in a significant improvement in GI, respiratory and dermatologic allergic symptoms. A reduction in his wheezing episodes also led to a decreased need for hospitalizations. The combination of eHF and GOS / FOS with B breve in Aptamil Pepti Syneo were effective in the dietary management of CMA.

INFANT WITH BLOODY STOOLS AFTER SWITCH TO INFANT FORMULA

BABY C

Alfred Tam Paediatrician
University of Hong Kong and the Chinese University of Hong Kong

PATIENT PROFILE

Cow's milk formula fed infant, born by caesarean section, with IgE-mediated cow's milk allergy (CMA), saw a quick resolution of bloody stools after switching to Aptamil Pepti Syneo.

- IgE-mediated CMA
- Born by caesarean section
- Gastrointestinal symptoms
- Dermatologic symptoms
- Family history of eczema

BACKGROUND

Baby C was born at full term (38 weeks) by elective caesarean section, weighing 2.88kg. He has a seven year old sister, who has had eczema since infancy and had recurrent wheezing between ages one to three years. Baby C was well at birth and was breastfed along with supplementary cow's milk formula for the first month of life, before switching to cow's milk formula as the sole source of nutrition. A week after his mother stopped breastfeeding, baby C was passing three to four loose stools a day, with one to two being stained with a small amount of fresh blood. Baby C had mild seborrheic dermatitis, a soft and non-tender abdomen with mild gaseous distension. However, he was feeding well, managing 800ml of feed without vomiting, and growing within normal parameters.

MANAGEMENT

Baby C's fresh blood stained stool was tested and the culture was negative. It was suspected that baby C had IgE-mediated CMA. His cow's milk formula was switched to Aptamil Pepti Syneo, and the blood in his stools quickly ceased. After two weeks of Aptamil Pepti Syneo, baby C's mother re-introduced cow's milk formula and several days later the blood reappeared in baby C's stools. This reaction formed the basis for baby C's cow's milk allergy diagnosis, and affected his treatment going forward. His allergy was suspected to be IgE-mediated given his eczema and atopic family history.

Baby C's eczema started to develop at two and a half months, mainly affecting his cheeks, elbow folds, abdomen and both legs. With the exception of occasional weather related flare ups, his eczema was effectively controlled with an intermittent topical steroid and continuous skin protection from oil and moisturisers.

> *Cow's milk formula was switched to Aptamil Pepti Syneo, and the blood in his stools quickly ceased.*

FOLLOW UP CARE

After baby C's CMA diagnosis, he was fed exclusively with **Aptamil Pepti Syneo**. He tolerated this feed well and at six months he was having up to 900ml of feed per day. Complementary feeding was introduced at five months. Baby C didn't show symptoms of an allergic reaction to any foods including dairy, which was introduced around nine months old. As recommended by most guidelines, baby C continued with **Aptamil Pepti Syneo** until one year old. He was then switched to cow's milk.

Baby C grew out of his CMA. At two years, baby C could tolerate all foods, including dairy products and, with the exception of a small rough patch on his legs, there were no issues with his skin. Baby C's growth remained satisfactory throughout.

> *At two years, baby C could tolerate all foods, including dairy products*

DISCUSSION

CMA is the most common cause of fresh blood stained stool in early infancy. Often this is due to an IgE-mediated allergy. There is a non-IgE mediated mechanism causing CMA, but this is not completely understood, especially when only the gastrointestinal tract is involved.

Most guidelines recommend the use of specific IgE antibodies to cow's milk to diagnose IgE-mediated CMA. However, when a blood test is not possible, cow's milk protein withdrawal and challenge can be used an alternative method of diagnosis. However, milk challenge remains the only standard test for non-IgE mediated CMA.

Baby C managed his CMA symptoms after switching to Aptamil Pepti Syneo. The role of fermentable fibres that act as substrate for the gut microbiota and also the role of specific strains of live beneficial bacteria has been extensively studied in food allergies and it is known that the gut microbiota plays an important role in prevention and tolerance development.

Baby C's eczema continued after he was able to tolerate cow's milk, suggesting that the eczema was present independent of the cow's milk allergy. However, one can become sensitized to an allergen via different routes including the skin, the gut and the airways. House dust mite could have been another sensitizing allergen. Baby C's continued eczema was mild, and responded to treatment from oils, moisturisers and steroids; the constant use of skin protection by moisturisers would have contributed towards decreasing sensitization via the skin.

CONCLUSION

This cow's milk allergic infant had a quick and complete resolution of his bloody stools following a switch from cow's milk formula to Aptamil Pepti Syneo. Baby C tolerated Aptamil Pepti Syneo well, had normal growth and development and later grew out of his CMA.

INFANT WITH CHRONIC FPIES

BABY D

Ángela Claver Monzón Paediatrician
University Hospital Dexeus

PATIENT PROFILE

Use of Aptamil Pepti Syneo in this mixed fed infant with chronic food protein-induced enterocolitis syndrome (FPIES) and non-IgE mediated cow's milk allergy (CMA) was well tolerated because of its palatability and led to fast symptom resolution.

- Non-IgE mediated CMA
- Chronic FPIES
- Faltering growth
- Feeding difficulties
- Gastrointestinal symptoms
- Symptomatic on lactose free formula

BACKGROUND

Baby D had an unremarkable medical history with no family history of allergies. He was exclusively breastfed for the first two months. When mixed feeding was commenced with a standard infant formula, baby D presented with intermittent vomiting, reflux, loose stools with mucus, bloating, inconsolable crying, fussy eating, decreased oral intake and weight loss. Baby D's laboratory test results were normal, with negative cow's milk specific IgE levels and a negative skin prick test. A diagnosis of chronic FPIES was confirmed after baby D had an acute reaction after six days of milk protein avoidance.

MANAGEMENT

Baby D was first prescribed an anti-regurgitation formula followed by a lactose free formula, neither of which improved his symptoms (see timeline on next page). Baby D was then started on a casein extensively hydrolysed formula (eHF) without lactose, and his symptoms improved. However, baby D refused this formula and continued to lose weight. Six days after starting the casein eHF, baby D presented at the emergency room with profuse emesis, lethargy and pallor. On the day of the acute reaction, Mum had mixed one cup of standard infant formula with the casein hydrolysed formula, to improve palatability. Baby D was switched to a whey hydrolysate, Aptamil Pepti, because of the improved palatability of a whey hydrolysate with lactose, and unlike the casein eHF without lactose, he didn't refuse this formula. Aptamil Pepti was tolerated perfectly and within three days, his symptoms resolved. Baby D's growth improved when he transitioned onto the whey eHF formula.

> *"Aptamil Pepti was tolerated perfectly and within three days, his symptoms resolved*

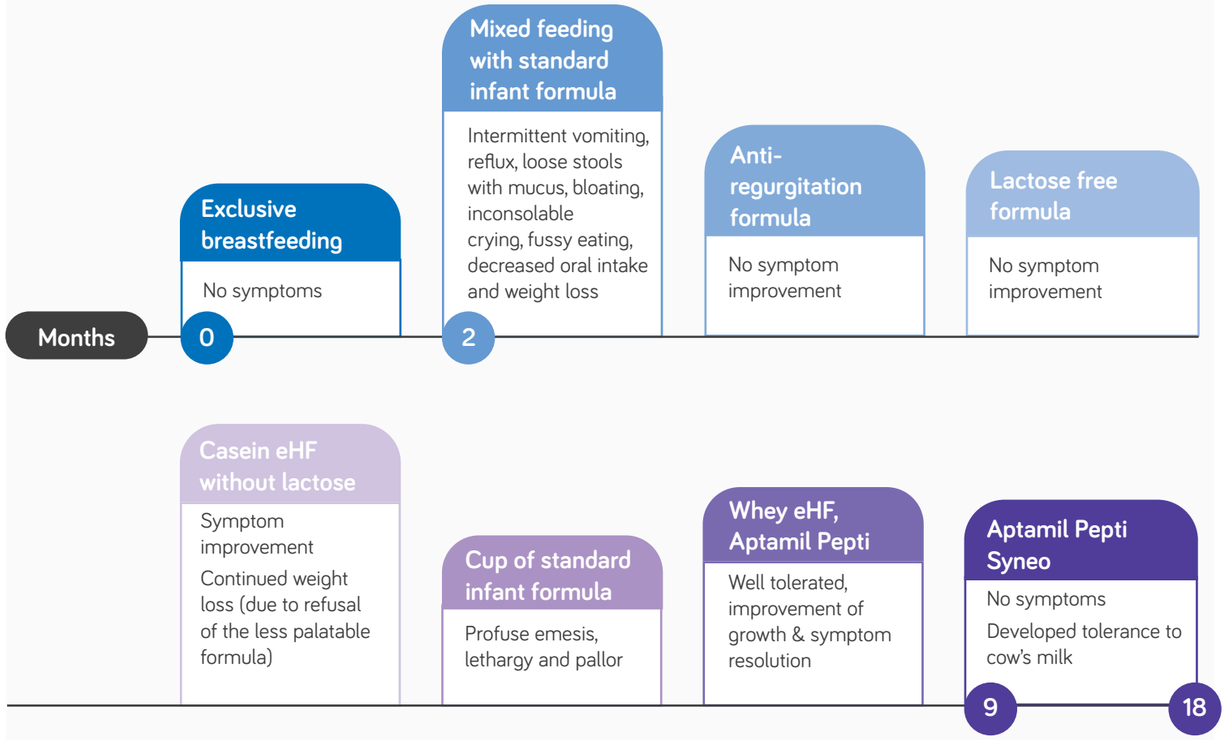
FOLLOW UP CARE

The aim of nutritional intervention was resolution of baby D's symptoms. At nine months of age, when the formula became available in Spain, baby D was switched from Aptamil Pepti to **Aptamil Pepti Syneo,** an eHF with scGOS / lcFOS + B breve M-16V, with no tolerance issues.

Complementary foods were introduced into baby D's diet at six months. At 18 months, baby D passed a controlled oral food challenge and tolerance to cow's milk protein was acquired.

The multiple formula switches without symptom improvement caused baby D's parents to be anxious and desperate, however this improved when he switched to, and tolerated well, Aptamil Pepti. Mum couldn't believe that baby D was eating without symptoms.

TIMELINE



Case study continues on the next page.

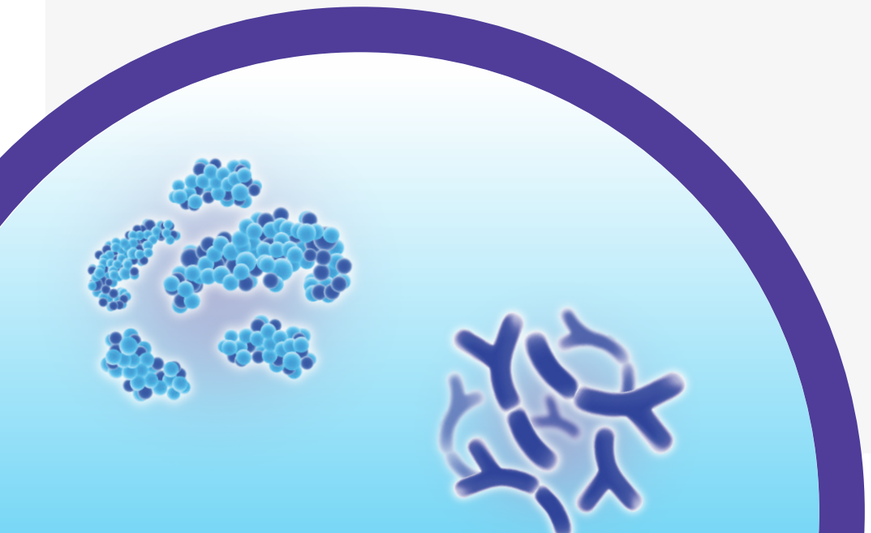
DISCUSSION

The diagnosis of chronic FPIES is often delayed because of its non-specific nature and delayed onset of symptoms after food ingestion. When symptoms of chronic FPIES are recognized early, elimination of the offending protein can prevent full expression of FPIES and its potential complications. Baby D refused casein eHF, so it was important to find an option with better palatability. Aptamil Pepti was palatable and perfectly tolerated, with a complete improvement in symptoms in just three days. At nine months old, it was changed to Aptamil Pepti Syneo, also with perfect tolerance.

> *Aptamil Pepti Syneo brought symptom relief from intermittent vomiting, crying and loose stools with mucus. Baby D's growth improved, and baby D's parents became less anxious knowing that their child was able to tolerate feeds without symptoms.*

CONCLUSION

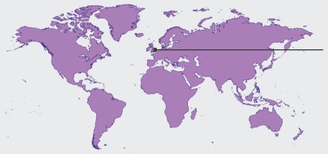
FPIES is frequently misdiagnosed, and patients undergo extensive diagnostic evaluations and multiple formula changes with no results. This mixed fed infant with chronic FPIES previously had multiple formula changes without success in managing the condition. Switching to Aptamil Pepti and subsequently Aptamil Pepti Syneo brought symptom relief from intermittent vomiting, crying and loose stools with mucus. Baby D's growth improved, and baby D's parents became less anxious knowing that their child was able to tolerate feeds without symptoms.



MIXED FED INFANT WITH MILD SYMPTOMS OF REFLUX, INTERMITTENT VOMITING AND ECZEMA

BABY E

Lisa Cooke Head of Paediatric Dietetics, Nutrition and SALT



UNITED KINGDOM

PATIENT PROFILE

Non-IgE mediated cow's milk allergic infant, with an atopic family history, switched from an extensively hydrolysed formula (eHF) to Aptamil Pepti Syneo and saw an improvement in his eczema after just four weeks.

- Non-IgE mediated CMA
- Family history of IgE-mediated CMA
- Gastrointestinal symptoms
- Dermatological symptoms

BACKGROUND

Baby E was born by vaginal delivery with no complications. He has a family history of IgE-mediated cow's milk allergy (CMA), with his older sibling being diagnosed with CMA. Baby E was breastfed from birth and presented with symptoms of reflux, intermittent vomiting and eczema at an early age. It was suspected that baby E had non-IgE mediated CMA.

MANAGEMENT

At six weeks old, in an effort to alleviate baby E's gastrointestinal and dermatological symptoms, he was commenced on ranitidine and his mother began to follow a cow's milk elimination diet. Together, these management strategies were effective in relieving his symptoms. When baby E's mother trialled re-introducing cow's milk containing foods back into her diet, baby E's symptoms returned which confirmed his non-IgE mediated CMA diagnosis.

At 14 weeks old, following his diagnosis, he was referred on for specialist allergy assessment and management. Baby E's mother was keen to supplement breastfeeding with a hypoallergenic formula so he was commenced on an eHF, Aptamil Pepti; baby E's symptoms remained under control.

Complementary feeding, excluding cow's milk containing foods, was successfully introduced at six months old.

FOLLOW UP CARE

The aim of baby E's follow up care was to ensure that he had no relapse of his CMA symptoms, to promote a balanced gut microbiome and when appropriate, to trial the reintroduction of cow's milk.

Baby E's mother had read about probiotics and was keen for him to trial an eHF with scGOS / lcFOS + B breve M-16V to support his gut microbiome. At nine and a half months old, baby E was switched from an eHF to an eHF with scGOS / lcFOS + B breve M-16V, **Aptamil Pepti Syneo**, which he tolerated well. His infant formula continued to supplement breastfeeding and his mother continued to follow a cow's milk elimination diet. Baby E's gastrointestinal and dermatological symptoms remained well controlled, with the exception of his eczema flaring up when he had a cold. He continued on ranitidine to manage his reflux.

Four weeks after commencing **Aptamil Pepti Syneo**, baby E's POSCORAD[1] (patient-oriented score of atopic dermatitis) fell from 14.9 to 9.4. Although his symptoms were already stable on the eHF, his mother reported that he responded better after switching to **Aptamil Pepti Syneo**. Baby E continued on **Aptamil Pepti Syneo** for a further four months before transitioning onto oat milk at 14.5 months. At 13 months old, baby E started introducing milk using the milk ladder guide; cow's milk foods have now been successfully introduced.

Baby E had normal growth throughout, with his weight and length falling between the 91st and 98th centiles.

DISCUSSION

After managing her other child with CMA, baby E's mother had a good awareness of CMA management and the importance of a balanced gut microbiome. She proactively approached a dietitian whilst still pregnant with baby E to ensure that she was ready should her unborn child be diagnosed with CMA. The use of Aptamil Pepti Syneo together with his mother's past experience of CMA management allowed baby E's mother to get on top of his diagnosis early, and start the milk ladder in a timely fashion.

> *Baby E tolerated Aptamil Pepti Syneo well and its use alongside breastfeeding resulted in an improvement to his eczema and continued control of his gastrointestinal symptoms*

CONCLUSION

Baby E tolerated Aptamil Pepti Syneo well and its use alongside breastfeeding (with his mother following a cow's milk elimination diet) resulted in an improvement to his eczema and continued control of his gastrointestinal symptoms. Baby E continued to grow well following the switch and the use of Aptamil Pepti Syneo had a positive impact on his mother's management experience.

1 Stalder J, Barbarot S, Wollenberg A, Holm E, De Raeve L, Seidenari S, Oranje A, Deleuran M, Cambazard F, Svensson A, Simon D, Benfeldt E, Reunala T, Mazereeuv J, Boralevi F, Kunz B, Misery L, Mortz C, Darsow U, Gelmetti C, Diepgen T, Ring J, Moehrenschlager M, Gieler U, Taïeb A. Patient-Oriented SCORAD (PO-SCORAD): a new self-assessment scale in atopic dermatitis validated in Europe. Allergy. 2011;66(8):1114-1121.

INFANT WITH SEVERE, IMMEDIATE ALLERGIC REACTIONS

BABY F

Diego Peroni Paediatrician
Paediatric Dept, University of Pisa

PATIENT PROFILE

Breastfed IgE-mediated cow's milk allergic infant, with no family history of atopy, continued to grow well and saw symptom improvement within a month, including reduced dryness of skin, after switching to Aptamil Pepti Syneo.

- IgE-mediated CMA
- Infant antibiotic use
- Dermatological symptoms
- Gastrointestinal symptoms
- Feeding difficulties

BACKGROUND

Baby F was born 40 weeks by spontaneous vaginal delivery and had no family history of atopy. At birth she was admitted to the Neonatal Intensive Care Unit (NICU) after a rise in inflammatory markers and a suspected infection. In the NICU baby F was treated with a systemic antibiotic and discharged home in good health after seven days. Baby F was breastfed for the first three months of life and presented with mild eczema. Baby F's mother had planned to introduce infant formula before substituting infant formula for breastfeeding, in preparation for her return to work. At three months old, baby F trialled cow's milk formula and immediately developed skin symptoms of urticaria (hives) and angioedema (swelling beneath the skin). Her two subsequent trials of the infant formula also resulted in vomiting for ten and fifteen minutes, respectively. In all three trials, baby F refused to continue feeding and was more irritable afterwards. Baby F also presented with inconsolable crying.

MANAGEMENT

Baby F was prescribed antihistamine following each of her adverse reactions to cow's milk formula. Apart from the attempts to introduce cow's milk formula, baby F was breastfed for four and a half months. Baby F's IgE-mediated cow's milk allergy (CMA) was confirmed by skin prick tests. Her tests for whole milk, casein, Alfa-lactoalbumin and Beta-lactoglobulin gave a wheel diameter of five, five, five and three millimetres respectively; all of which indicated an allergy[1]. Her SCORAD (SCORing Atopic Dermatitis) tool result was 28[2], indicating moderate atopic dermatitis..

1 For skin prick tests, an average wheel diameter above 3mm usually indicates an allergy.

Kido, J., Hirata, M., Ueno, H., Nishi, N., Mochinaga, M., Ueno, Y., Yanai, M., Johno, M. and Matsumoto, T., 2016. Evaluation of the Skin-prick Test for Predicting the Outgrowth of Cow's Milk Allergy. Allergy & Rhinology, 7(3), pp.e139–e143.

van der Valk, J., Gerth van Wijk, R., Hoorn, E., Groenendijk, L., Groenendijk, I. and de Jong, N., 2015. Measurement and interpretation of skin prick test results. Clinical and Translational Allergy, 6(8).

2 Oranje A. Practical issues on interpretation of scoring atopic dermatitis: SCORAD Index, objective SCORAD, patient-oriented SCORAD and Three-Item Severity score. Current problems in dermatology. 2011; 41:149-155.

FOLLOW UP CARE

The aim of baby F's nutritional intervention was to find a safe formula for her to commence. The formula needed to allow normal growth to continue, cause a reduction in her existing eczema and not induce any new symptoms. Tolerance to the formula was important given baby F's mothers' decision to stop breastfeeding and switch to formula as the sole source of nutrition. **Aptamil Pepti Syneo** was commenced under supervision in hospital at four and a half months, at 180ml four times a day. Baby F had good compliance with **Aptamil Pepti Syneo** and consumed it with no issues.

After switching to **Aptamil Pepti Syneo** baby F's symptoms visibly improved within a month. The dryness of her skin improved and her SCORAD score fell from 28 to 15. Baby F grew well whilst she was breastfed and continued to grow well, following normal growth percentiles, after switching to **Aptamil Pepti Syneo** (growth chart on next page).

Baby F started weaning at five months, gradually introducing foods with the exceptions of milk and milk derivatives. Baby F has not yet developed tolerance to milk.

> *After switching to **Aptamil Pepti Syneo** baby F's symptoms visibly improved within a month.*

DISCUSSION

CMA is a frequent issue in paediatric clinical practice and diagnosis is essential to determine the correct therapeutic approach. Aptamil Pepti Syneo is indicated where breastfeeding is not possible, and safe nutritional support is needed. Aptamil Pepti Syneo prevents cow's milk exposure and the associated symptoms. It can also improve symptoms associated with other atopic diseases, such as atopic dermatitis, as it did in baby F; this could be due to Aptamil Pepti Syneo's influence on the gastrointestinal (GI) microbiome.

In baby F's case, Aptamil Pepti Syneo was recommended because it contains hydrolysed cow's milk proteins alongside GOS / FOS and B breve.. The presence of GOS / FOS and B breve. modifies the GI microbiome, potentially facilitating a faster tolerance of cow's milk; the acquisition of tolerance is a fundamental objective for patients and their families in infancy.

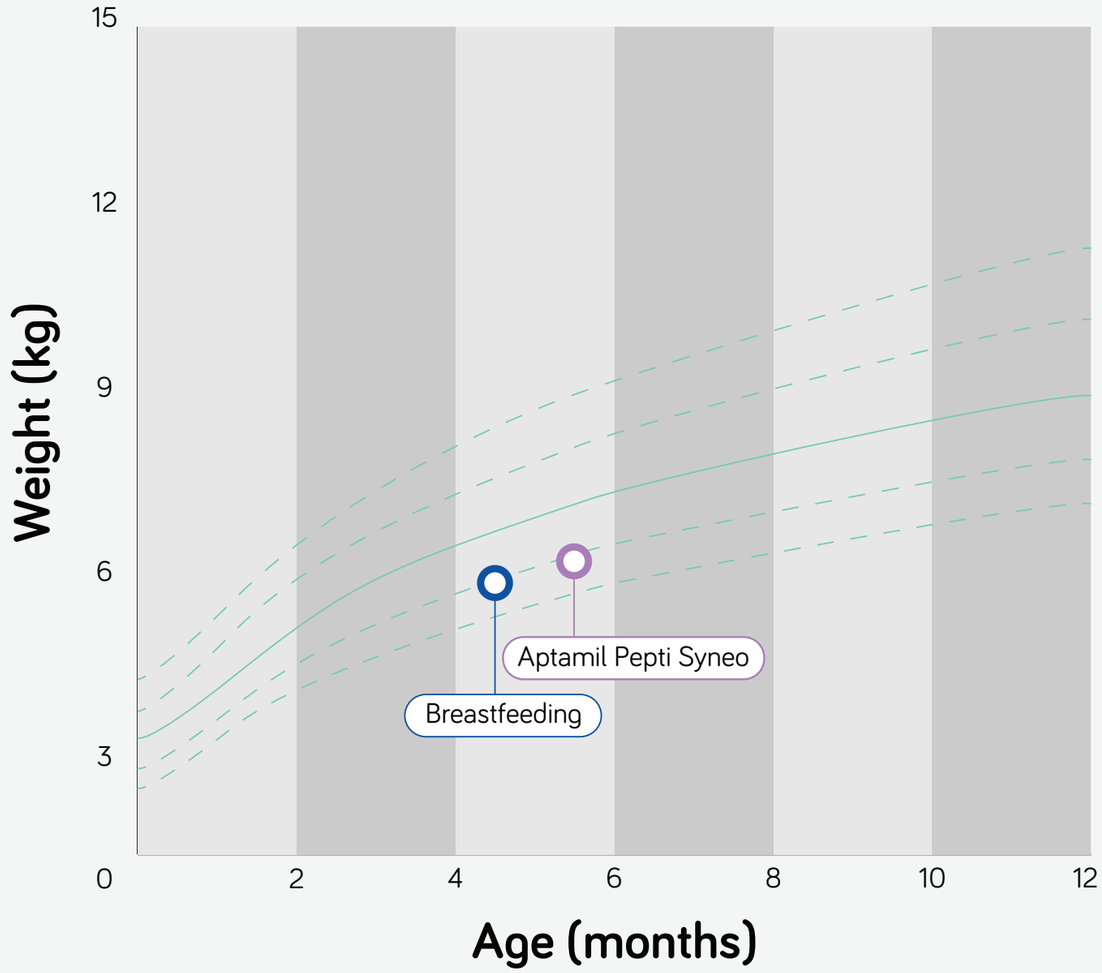
> *Baby F's mother was satisfied with the feed and had reduced anxiety now that baby F could tolerate the formula safely.*

CONCLUSION

In this IgE-mediated CMA infant, commencing Aptamil Pepti Syneo resulted in an improvement to her eczema within a month and facilitated continued normal growth without any additional symptoms. Baby F's mother was satisfied with the feed and had reduced anxiety now that baby F could tolerate the formula safely.

Case study continues on the next page.

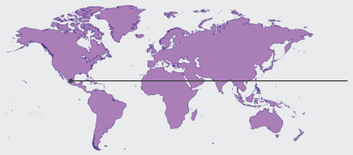
GROWTH CHART



CHALLENGES WITH AN ELIMINATION DIET IN A BREASTFED INFANT

BABY G

José Francisco Cadena León Paediatric Gastroenterologist
National Paediatrics Institute



PATIENT PROFILE

This non-IgE mediated cow's milk allergic infant was born at full term via caesarean section and was breastfed from the start of her life supplemented with standard infant formula. Breastfeeding (with the mother following a cow's milk elimination diet) in combination with Pepti Syneo didn't lead to a complete resolution of symptoms, so the infant was transitioned completely to Pepti Syneo which resulted in symptom improvement and improved quality of life.

- Born by caesarean section
- Non-IgE mediated CMA
- Family history of allergic rhinitis
- Maternal antibiotic use during pregnancy
- Exposure to infant formula within 24 hours of birth
- Dermatological symptoms
- Gastrointestinal symptoms
- Challenges with (maternal) elimination diet

BACKGROUND

Baby G was born at 39 weeks by caesarean section, weighing 2.95kg. Baby G's mother took antibiotics during her third trimester of pregnancy and has allergic rhinitis. From birth, baby G was breastfed and supplemented with a standard infant formula. At seven days old, baby G presented with irritability, colic, straining, refusal to feed, back arching after eating, gastroesophageal reflux (GER) (regurgitation four times a day) and two episodes of intermittent laryngeal spasms. Baby's G straining typically lasted three to five minutes, with face redness (dyschezia) and pasty stools with mucus. Baby G was examined at 15 days old and found to have eczema on both cheeks, perianal erythema and slight abdominal distension.

MANAGEMENT AND FOLLOW UP CARE

The goal of baby G's nutritional intervention was to alleviate her symptoms and to prevent any complications, namely long or short term inflammatory or motility disorders. Given baby G's risk factors for cow's milk allergy (CMA) and her clinical symptoms, she was commenced on **Aptamil Pepti Syneo.**

Baby G started **Aptamil Pepti Syneo** at 15 days old, in combination with breastfeeding, and baby G's mother followed a cow's milk elimination diet. There were no issues with the palatability, tolerance or acceptance of **Aptamil Pepti Syneo**. Baby G's regurgitation, irritability and laryngeal spasms all became 50% less frequent, and her stool frequency normalised. However, baby G's mother had poor compliance to her elimination diet and it was recommended that baby G was exclusively fed by **Aptamil Pepti Syneo** for ten days; this resulted in a 90% improvement to her symptoms.

MANAGEMENT AND FOLLOW UP CARE (CONT.)

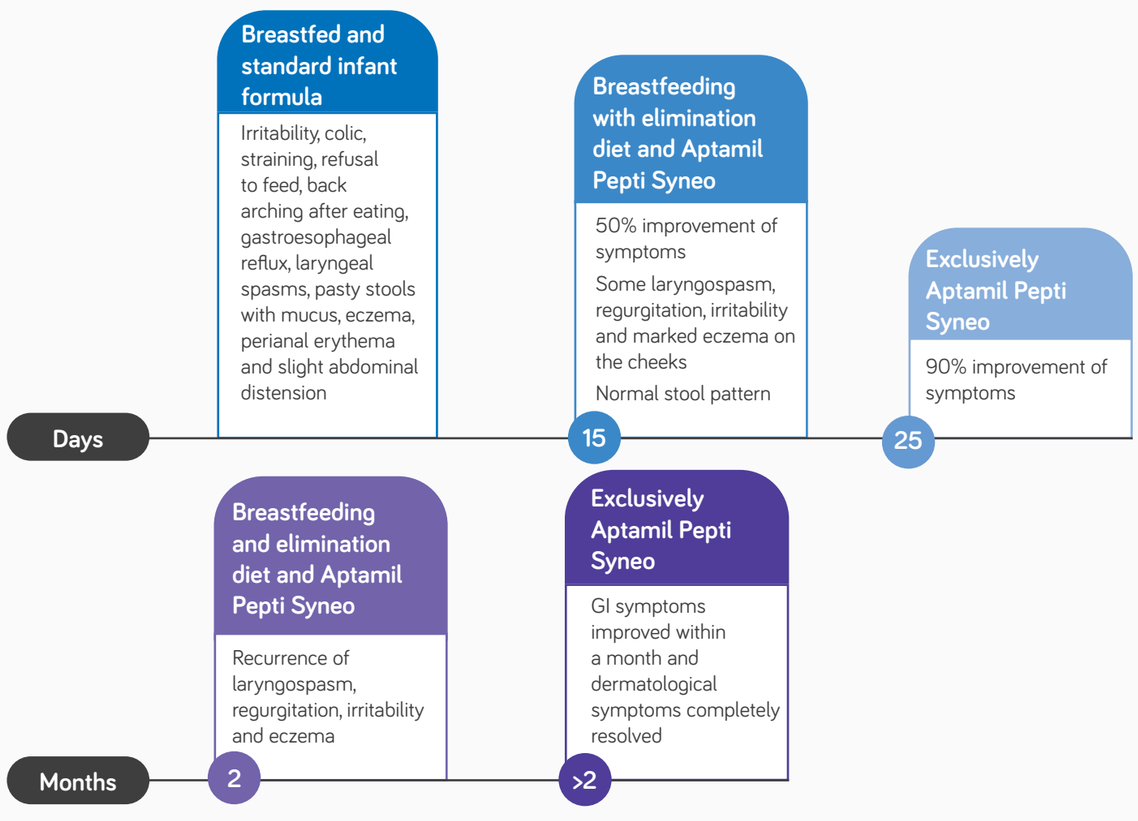
After ten days breastmilk was re-introduced, with baby G's mother on a strict cow's milk protein elimination diet. Her mother had poor compliance to the elimination diet and the reintroduction of breastmilk lead to a recurrence of baby G's laryngospasm, regurgitation, irritability and eczema. Consequently, after 48 hours breastfeeding was discontinued and baby G was fed again exclusively with **Aptamil Pepti Syneo**. Once exclusively on **Aptamil Pepti Syneo**, baby G's gastrointestinal (GI) symptoms were improved within a month and her dermatological symptoms completely resolved. As a result of her symptom improvement following cow's milk restriction, baby G was diagnosed with non-IgE CMA.

At five months old, baby G was given a cookie containing cow's milk protein and her GI and dermatological symptoms returned. Her mother was re-educated about baby G's diet and baby G was prescribed three days of an anti-histamine. Although accidental, her reaction to cow's milk at five months demonstrated that she hadn't yet developed tolerance. At six months complementary feeding was introduced (excluding cow's milk), and baby G's tolerance will be assessed at 12 months old.

She had normal growth and neurological development throughout.

> *Once exclusively on **Aptamil Pepti Syneo**, baby G's gastrointestinal (GI) symptoms were improved within a month and her dermatological symptoms completely resolved.*

TIMELINE



Case study continues on the next page.

DISCUSSION

In the first months of baby G's life her parents were stressed and anxious because of the multiple symptoms their infant was displaying. At first, baby G's mother trialled following an elimination diet whilst breasfeeding but due to her poor compliance this wasn't successful. However, once baby G was exclusively fed with Aptamil Pepti Syneo, their stress reduced and overall quality of life improved. The impact of Aptamil Pepti Syneo's blend of scGOS / lcFOS + B breve M-16V is seen in the resolution of baby G's dermatological symptoms and the improvement in her GI symptoms.

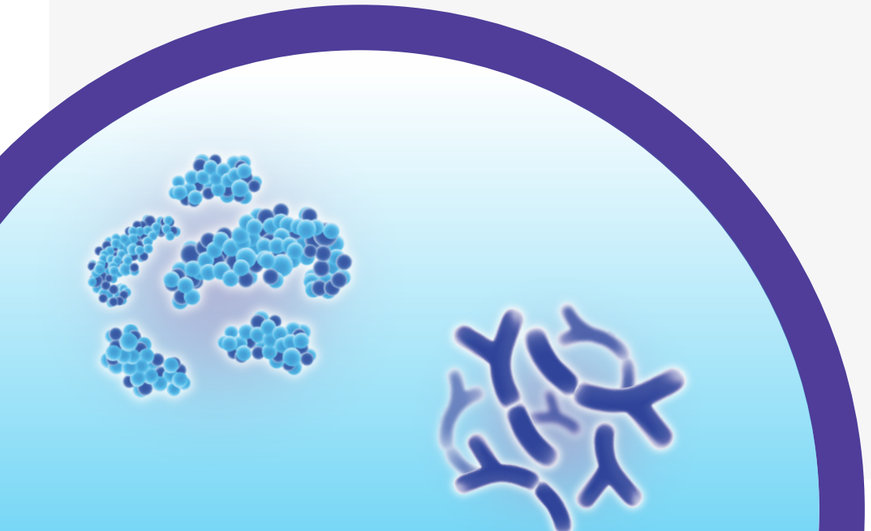
Non-IgE mediated CMA can be present from the first weeks of life. The presence of genetic or epigenetic risk factors and symptoms help to make an early diagnosis, and allow an appropriate treatment plan to be implemented. The management of CMA aims to achieve oral tolerance and encourage optimal development within the first six months of infants' lives, known as the 'window of opportunity'.

Where infants are partially breastfed or exclusively formula fed, an extensively hydrolysed formula with scGOS / lcFOS + B breve M-16V may help infants to develop oral tolerance. Once the formula is introduced, it may take one to two weeks for symptoms to resolve, and healthcare professionals should be mindful of a patient's compliance to the rest of their diet.

> *Overall, baby G's parents and healthcare team were very satisfied with her health.*

CONCLUSION

Baby G had a complete resolution of her dermatological symptoms and improvement in her GI symptoms within one month of switching to feeding exclusively with Aptamil Pepti Syneo. Overall, baby G's parents and healthcare team were very satisfied with her health.



MIXED FED INFANT WITH MFA AND SEVERE ATOPIC DERMATITIS

BABY H

María Eugenia Gervasoni Paediatrician/Allergy Immunologist
Hospital de Niños Víctor J. Vilela

PATIENT PROFILE

This infant, born at 39 weeks by caesarean section, has multiple food allergies (MFA) to cow's milk, egg and peanut. After exclusive breastfeeding (with the mother following an elimination diet) didn't lead to symptom resolution and the infant failed to thrive, Aptamil Pepti Syneo was introduced to supplement breastfeeding (mother eliminating cow's milk, eggs and peanuts). Within a month, this switch resulted in an improvement in growth and dermatological and gastrointestinal symptoms in baby H.

- IgE and non-IgE mediated CMA
- Mixed fed infant
- Multiple food allergies
- Born by caesarean section
- Family history of atopic dermatitis and asthma
- Severe atopic dermatitis
- Gastrointestinal symptoms
- Failure to thrive

BACKGROUND

Baby H was born at 39 weeks by elective caesarean section weighing 3.2kg. He has a family history of atopic dermatitis and asthma. From birth baby H was breastfed, and from four days until one month old, baby H was breastfed and supplemented with a standard infant formula. At 15 days old, baby H presented with urticarial plaques (hives), atopic dermatitis, colic, crying, vomiting, gastroesophageal reflux (GER) and had mucus in his stools. Proton pump inhibitors (PPI) were prescribed in an attempt to manage baby H's GER symptoms. At one month old, baby H's symptoms persisted; his infant formula was discontinued and he was exclusively breastfed without his mother following an elimination diet.
At four months old, baby H was referred on by his paediatrician and dermatologist as his symptoms hadn't resolved.

MANAGEMENT

At four months old, baby H was referred with suspected food allergy and moderate atopic dermatitis which was difficult to control with dermatological treatment. On examination, baby H had eczema on his cheeks, torso and arms and seborrheic dermatitis on his scalp and forehead. His SCORAD (SCORing Atopic Dermatitis) score was 49.40[1] , indicating severe atopic dermatitis. He was irritable with a slightly tender abdomen, hyperactive bowel sounds and perianal erythema. Baby H was recommended to continue with his dermatologic treatment and his mother was recommended to follow an elimination diet, excluding milk and eggs as these are the main food allergens in Argentina.

1 Oranje A. Practical issues on interpretation of scoring atopic dermatitis: SCORAD Index, objective SCORAD, patient-oriented SCORAD and Three-Item Severity score. Current problems in dermatology. 2011; 41:149-155

At six months old, complementary foods were introduced (excluding milk and eggs) and baby H's PPI's were stopped as his GER was improved.

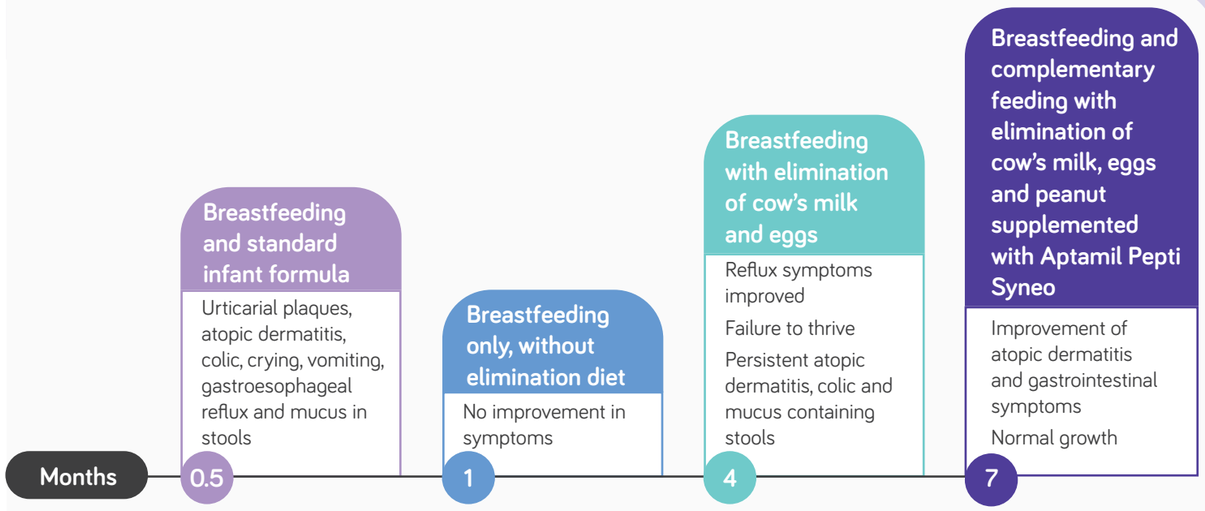
At baby H's follow-up appointment at seven months old, his symptoms were improved but he showed failure to thrive and had persistent atopic dermatitis, colic and mucus containing stools (type 7 on the Bristol stool chart[2]). Baby H underwent skin prick testing[3] and serum specific IgE testing. Baby H showed a positive result to cow's milk (10mm, 3 mUI/ml), alpha-lactalbumin (5mm, 1 mUI/ml), beta-lactoglobulin (8mm, 1.8 mUI/ml), casein (5mm, 1.2 mUI/ml), egg white (9mm, 3,2 mUI/ml), egg yolk (7mm, 2.5 mUI/ml), ovoalbumin (8mm, 3.1 mUI/ml), ovomucoid (7mm, 3 mUI/ml) and peanut (5mm, 2 mUI/ml). He was diagnosed with mixed IgE and non-IgE mediated allergy to cow's milk, egg and peanut.

FOLLOW UP CARE

After baby H's allergy diagnosis, it was recommended that both baby H and his mother eliminate peanuts from their diets in addition to milk and eggs. In view of baby H's failure to thrive and his suspected intestinal dysbiosis, **Aptamil Pepti Syneo** was commenced to supplement breastfeeding. Baby H was also referred onto a nutrition specialist for follow-up. Baby H tolerated and adhered to **Aptamil Pepti Syneo** well and achieved his target volume of 720ml/day. One month after starting **Aptamil Pepti Syneo**, baby H's atopic dermatitis was improved; his SCORAD score fell to 9.14 indicating mild atopic dermatitis. His colic also resolved and his stools reduced in frequency, no longer contained mucus and were a normal consistency (type 5 on the Bristol stool chart[2]). Baby H had no infections and his growth recovered.

Baby H has not yet developed tolerance to cow's milk; he accidentally ingested cow's milk and urticarial plaques immediately appeared on his face, followed by an outbreak of atopic dermatitis and mucus in his stools the next day. He is planned to continue **Aptamil Pepti Syneo** and his elimination diet, with regular review.

TIMELINE



Case study continues on the next page.

2 Lewis S, Heaton K. Stool Form Scale as a Useful Guide to Intestinal Transit Time. Scandinavian Journal of Gastroenterology. 1997;32(9):920-924.
For skin prick tests, an average wheel diameter above 3mm usually indicates an allergy.

3 Kido, J., Hirata, M., Ueno, H., Nishi, N., Mochinaga, M., Ueno, Y., Yanai, M., Johno, M. and Matsumoto, T., 2016. Evaluation of the Skin-prick Test for Predicting the Outgrowth of Cow's Milk Allergy. Allergy & Rhinology, 7(3), pp.e139–e143.

van der Valk, J, Gerth van Wijk, R., Hoorn, E., Groenendijk, L., Groenendijk, I. and de Jong, N., 2015. Measurement and interpretation of skin prick test results. Clinical and Translational Allergy, 6(8).

DISCUSSION

In the first few months of life, baby H's symptoms meant that baby H and his family had a poor quality of life. If baby H had been referred on earlier, the elimination diet and Aptamil Pepti Syneo could have been commenced sooner, leading to an earlier improvement in baby H's symptoms. Once Aptamil Pepti Syneo was commenced, baby H and his family's quality of life was significantly improved; his colic resolved and he was less irritable and cried less.

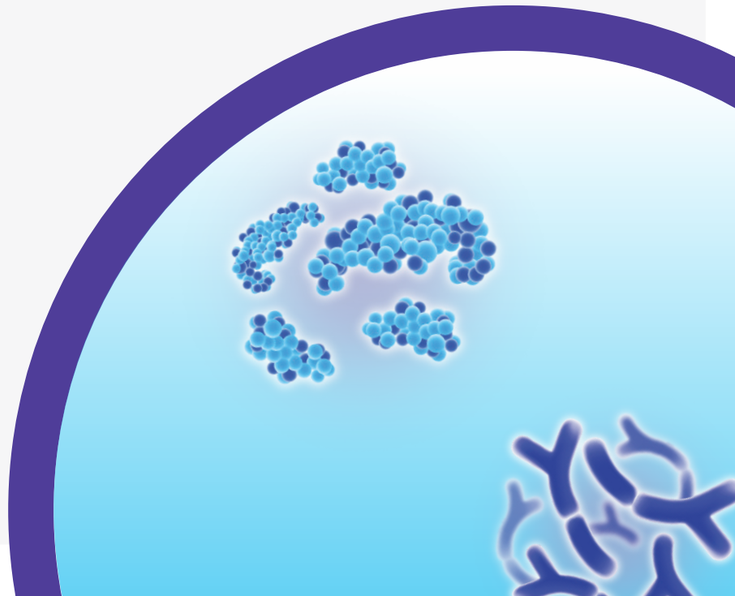
Baby H's severe atopic dermatitis was improved to only mild atopic dermatitis on Aptamil Pepti Syneo, his colic resolved and his stools reduced in frequency, and were a normal consistency. Baby H had no infections and his growth recovered.

"In view of baby H's failure to thrive and his suspected intestinal dysbiosis, Aptamil Pepti Syneo was commenced to supplement breastfeeding.

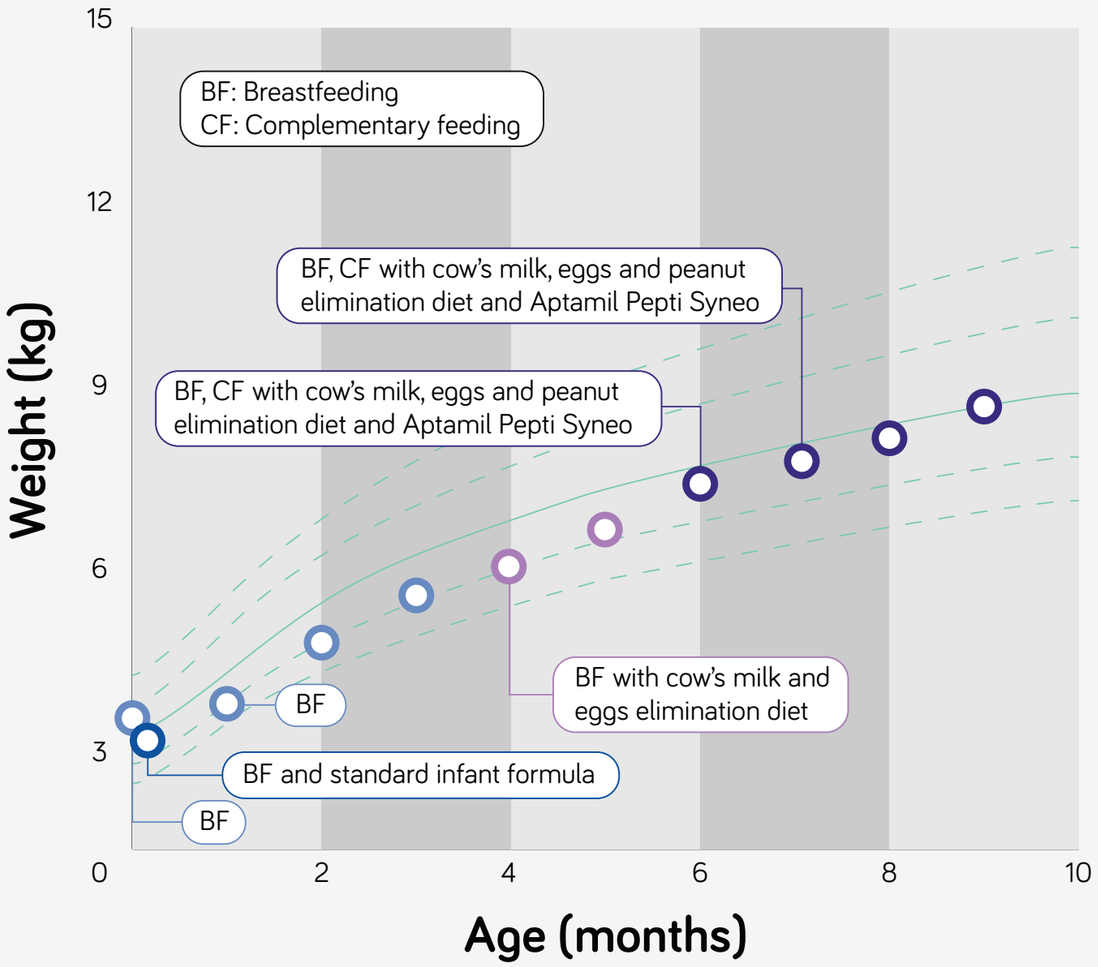
Baby H presented with a number of risk factors for food allergy such as a caesarean section birth, early use of infant formula (from four days to one month old), a family history of allergies and being prescribed PPIs in his first months of life. It's important that infants are referred onto specialists early if they don't improve with the basic treatments; early diagnosis and treatment of food allergies gives an opportunity to prevent failure to thrive. The use of special formula with GOS / FOS and B breve for cow's milk allergy (CMA) needs to be considered as a good nutritional intervention to address dysbiosis.

CONCLUSION

Baby H had good growth and saw an improvement in his dermatological and gastrointestinal symptoms after he and his mother eliminated milk, eggs and peanuts and baby H began Aptamil Pepti Syneo to supplement breastmilk. Baby H tolerated Aptamil Pepti Syneo well and baby H and his families' quality of life improved significantly.



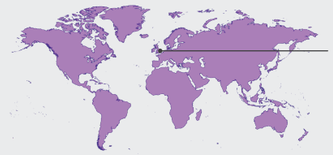
GROWTH CHART



INFANT WITH PERSISTENT CONSTIPATION ON AN EHF WITHOUT GUT MODULATING INGREDIENTS

BABY I

Catherine Casewell Specialist Paediatric Dietitian



PATIENT PROFILE

Formula fed infant who was born prematurely by caesarean section with non-IgE mediated cow's milk allergy (CMA) and symptomatic on a casein-based extensively hydrolysed formula (eHF). The infant saw a quick resolution of their gastrointestinal symptoms and reduction in their use of laxatives following a switch to Aptamil Pepti Syneo.

- Non-IgE mediated CMA
- Prematurely born infant due to intrauterine growth retardation
- Gastrointestinal symptoms
- Dermatological symptoms
- Symptomatic on eHF

BACKGROUND

Baby I was born preterm at 36 weeks by caesarean section with no complications, due to intrauterine growth retardation. Baby I was born on the 0.4th centile for weight and was formula fed from day one, starting with a standard infant formula. At seven days old, baby I presented to the emergency room with poor feeding (reduced from 50-60mls every three hours to 20ml) and a high incidence of flatulence. They were admitted to the paediatric ward for 24-hour observation and discharged home the following day as feeding had improved. From four weeks old baby I's weight began to increase, moving towards the 25th-50th centile. At four weeks old, baby I presented to the general practitioner (GP) with worsening symptoms of reflux, vomiting, constipation and mild patches of dry skin, all of which had been present since birth. The GP suspected non-IgE mediated CMA.

MANAGEMENT

In an effort to alleviate baby I's gastrointestinal and dermatological symptoms, the GP commenced an EHF containing Lactobacillus rhamnosus GG (LGG), alongside Gaviscon (alginate). Baby I's reflux symptoms persisted and Gaviscon was changed to Omeprazole (proton pomp inhibitor). On some days, baby I was being fed up to 200ml per kg of body weight per day, so overfeeding may have contributed to the reflux and discomfort. Baby I was referred onto a paediatrician to support with the management of their reflux and constipation.

Following the switch to Omeprazole, the combination of an EHF containing LGG plus medication was effective at managing baby I's reflux and vomiting. However, baby I's dry skin and constipation persisted. To manage the ongoing constipation daily laxatives (half a sachet of Laxido) were prescribed. The laxatives were effective and baby I's bowels began to open regularly, although when the laxatives were not taken baby I's stools became hard (type one on the Bristol Stool Chart[1].

1 Lewis S, Heaton K. Stool Form Scale as a Useful Guide to Intestinal Transit Time. Scandinavian Journal of Gastroenterology. 1997;32(9):920-924.

MANAGEMENT (CONT.)

Baby I's suspected non-IgE mediated CMA was confirmed when their symptoms returned after being challenged with cow's milk. At six months old, baby I was referred to the dietitian for ongoing support with allergy management. The aim of dietetic care was to provide a cow's milk free diet for baby I, to manage baby I's symptoms, and to identify appropriate cow's milk alternatives which allow for normal growth to be maintained and nutritional requirements to be met.

Complementary feeding, excluding cow's milk containing foods, was successfully introduced at six months old. A particular emphasis was placed on fibre containing foods considering baby I's constipation. Solids soon became preferable to formula for baby I and they began to refuse the formula.

FOLLOW UP CARE

To improve baby I's formula intake and constipation, baby I's parents agreed to switch them onto a GOS / FOS and B breve containing eHF, **Aptamil Pepti Syneo**. This was well tolerated and baby I was able to meet their target volume of around 400ml of **Aptamil Pepti Syneo**, alongside their three meals a day.

After eleven days on Aptamil **Pepti Syneo,** baby I was passing softer stools (type six on the Bristol Stool Chart'), their bowels were opening normally without straining and baby I's laxatives were able to be reduced from daily to every two days. After four weeks of **Aptamil Pepti Syneo**, baby I's reflux and vomiting had both completely resolved, their constipation continued to be well managed, and they continued to grow well (tracking along the 75th centile for weight and length).

However, baby I continued to experience mildly dry skin and they developed a fungal skin infection which required Daktarin (anti-fungal medication).

At nine months old baby I was challenged with cow's milk, using the iMAP milk ladder as a guide. Baby I progressed quickly through the stages (advancing a step every three to four days) but as they progressed, more laxatives were needed. It was recommended that baby I return to a stage where laxatives didn't need to be increased and that they be re-trialled three months later. Three months later, just before baby I was one year old, they acquired tolerance to cow's milk and **Aptamil Pepti Syneo** was successfully switched to standard infant formula. At this stage, baby I's symptoms had fully resolved, and all their medications had ceased. Baby I was enjoying meals containing cow's milk, and these meals met all their nutritional requirements.

DISCUSSION

The aim of baby I's management was to provide symptom relief from the constipation, reflux, and vomiting that baby I was experiencing, despite the use of medication and eHF. Initially, overfeeding may have played a role in baby I's reflux and discomfort as some days baby I was fed up to 200ml per kg of body weight per day.

Following the switch to Aptamil Pepti Syneo baby I's parents were satisfied that the severity of baby I's symptoms had reduced, as well as the need for laxatives. Baby I tolerated the target volume of Aptamil Pepti Syneo with no concerns, until the taste for solids became preferable.

> *"After eleven days on Aptamil Pepti Syneo, baby I was passing softer stools, their bowels were opening normally without straining and laxatives were able to be reduced from daily to every two days*

> *"Baby I tolerated the target volume of Aptamil Pepti Syneo with no concerns*

CONCLUSION

Baby I tolerated Aptamil Pepti Syneo well and its use helped relieve baby I's gastrointestinal symptoms and reduce their medication usage. Following the switch, baby I continued to grow well and was subsequently able to incorporate and tolerate cow's milk in their diet.

NOTES

For more information or to speak to a dietitian about prescribing Aptamil Pepti Syneo

T: 1800 923 404 (ROI) **or** 0800 783 437 (NI)
E: support.ireland@nutricia.com
W: www.nutricia.ie **or** scan the QR code

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