

Case Study 4

The dietary management of a complex cows' milk allergy patient using Alfamino®



Minal Patel MSc RD, Paediatric Gastroenterology Dietitian,
Barts Health NHS Trust

A 2 month old baby was referred for Nasogastric feeding following an episode of bronchiolitis. The baby had a past medical history of atopic eczema and was previously managed by the GP and Allergy & Dermatology team.

Patient's background, medical history, physical diagnosis

The patient was born full term in August 2014.

Pre-October 2014, there was one admission to hospital for eczema and the patient was seen by the dermatology consultant and commenced on Similac Alimentum, an extensively hydrolysed patient formula. The patient was then managed in the community between the GP and dermatology. As the patient was not taking the full volume of formula due to the taste, they were switched to Aptamil Pepti 1.

In October 2014, the GP referred the patient to the hospital allergy service due to atopic eczema and suspected cows' milk allergy. An allergy consultant commenced the patient on Althéra®.

Case Study 4, cont

Hospital admission - November 2014

The patient was admitted to hospital with bronchiolitis and reduced feeding with associated weight loss. It was deemed that the patient was a complex or severe case, therefore an AAF was initiated. At this stage weight and height were confirmed as:

Height 50-75th centile

Weight 2nd-9th centile

During hospital admission the patient was referred to speech therapy with suspected reflux of feed. The speech therapy assessment indicated a safe swallow but the patient was averse to the bottle.

Three days after admission into hospital, a nasogastric feeding tube was inserted and the patient was commenced on Alfamino[®], an amino acid formula for patients, at standard concentration @ 150mls/kg. The formula was offered orally at first but if refused was given via the NG tube as three hourly gravity boluses.

A review two days after the NG was inserted, indicated that the patient was tolerating Alfamino[®] well with no vomiting, and dairy free weaning was discussed with the parents. As the patient continued to have problems with taking the formula orally via a bottle, a beaker was trialled.

Post-hospital progress

On 13th November 2014, the patient was discharged home with an NG tube and a full volume of Alfamino[®] @ 110mls/kg. The patient was handed over to the community home enteral tube feeding dietitians.

12 days later, a joint dietetic and speech therapy review of patient at home took place:

- There were concerns expressed by the parents that the patient was struggling with formula orally, but taking water orally.
- It was confirmed that some puréed food had been started.
- There were no problems with constipation or vomiting.
- Alfamino[®] had been given at a standard concentration @ 120mls/kg as three hourly gravity boluses via the NG tube.
- The patient's weight was on the 25th Centile.

During this review, a new plan was agreed which included:

- Offering smooth purée three times a day and encouraging fluid via the bottle.
- Increasing the formula to four hourly boluses at 160mls if the patient is hungry.
- Reviewing again in six weeks.

During the period between dietetic reviews, the patient also attended the allergy clinic where it was reported that the eczema had improved, resulting in the reduction of steroid use. Due to ongoing issues with episodes of vomiting, Omeprazole had been previously prescribed; however this was only given for two weeks by the parents so advice was given to the parents to restart the use of Omeprazole.

In January 2015, a joint review with the Dietitian and Speech Therapy took place. There were still incidences of gagging/vomiting tube feeds despite starting Omeprazole and the patient was having 120-160mls three to four hourly, depending on tolerance. The patient had also started using a medela cup for family puréed foods and their Alfamino®.

It was recommended that the patient should have a dairy free diet orally and follow up was planned for six weeks in the community eating and drinking clinic. Weight and height were confirmed as:

Weight 25th centile – continues to track along centile

Length 75th centile

Nutritional problems and dietetic intervention

Nutritional problems were still occurring for the patient, with ongoing episodes of vomiting and the requirement of the NG tube for the patient's formula when bottle aversion and vomiting were present.

The initiation of oral solids and liquids has also been problematic at times and the patients have required details and education on a dairy free diet for oral intake.

In February 2015 at an allergy consultant review, weight and height were confirmed as:

Weight 25th centile

Height 75-91st centile

Case Study 4, cont

Faltering growth was still an issue and was associated with continued vomiting. The dose of Omeprazole was increased and Domperidone was also prescribed. The differential diagnosis at this review appointment was not straightforward and was deemed to be a cows' milk allergy with a degree of gastric dysmotility. As of print, an appointment with the Gastroenterology team to assess the dysmotility is pending.

At this stage, the NG tube remains in-situ and the patient is receiving Alfamino®.

Aims

The following future aims have been set for the patient:

- To achieve weight gain.
- To deliver full volume of patient formula either orally or via NG tube.
- To reduce oral aversion.

Nutritional indication and rationale

Initial feeds chosen to manage this patient proved unsuccessful as extensively hydrolysed patient formulas are not suitable for complex cows' milk allergy patients. Alfamino®, an amino acid formula, was commenced in line with guidelines (BSACI etc.) as the patient was displaying complex symptoms of cows' milk allergy.

Outcomes

Although at the time of print, the patient is still experiencing some ongoing issues, such as vomiting (which may be due to possible gastric dysmotility), many improvements to their condition have been made. These include:

- Catch up growth achieved 2nd centile to 9th centile then 25th centile.
- The patient's eczema improved once commenced on amino acid formula, Alfamino®.
- No problems with bowels.

Conclusion

Amino acid formulas have an important role to play in the treatment of severe cows' milk allergy symptoms. Alfamino® has helped to improve this patient's quality of life, and with continued diagnoses, it can continue to improve.

ALFCS03 JUL15



NestléHealthScience