

# 346 Effect of bed encasing on mite allergic children. A survey of 97 children in Sweden.

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**Abstract:** A simple and effective method for reducing exposure to mites is the encasing of mattress, pillows and quilt with allergen-proof covers. Several studies have shown that encasing reduces the levels of mite allergens on the bed up to 98-100%. Reduced exposure improves allergic symptoms and lung function, as well as decreases the need of rescue medication, especially among children. The aim of this study was to evaluate how parents of mite allergic children perceive the effect of encasing. This has not been investigated earlier.

**Methods:** A questionnaire was sent by post to 125 families who have children with diagnosed mite allergy and who used ACb® covers (Allergy Control Products Inc.) under the last 18 months. The questionnaire included questions about the disease, type of encasing, effect on symptoms and medication and quality of life. Ninety-eight families with 102 children returned the questionnaires. Five of the children were excluded because they received allergen specific immunotherapy simultaneously.

**Results:** Allergic symptoms improved, according to their parents, in up to 88% of the children. Among those who have asthma improvement was reported in 79%. Moreover, symptom's reduction was reported in 81% of children with rhinitis and in 76 % of the children with eczema. Medication was considered lower in 56% of the children. 66 % of the children slept better with the covers and 94% of the families evaluated the comfort as good or very good.

**Conclusions:** Parents perceived bed encasing as a very effective treatment in the management of mite allergy in their children.

## Background

- Encasing of mattress and pillows with allergen proof material is a simple and effective method that reduces exposure and thus symptoms.
- Encasing is the first recommendation in mite allergy.<sup>1</sup>
- Clinical studies have shown that ACb encasing reduces mite allergen levels in the bed with up till 98-100%.
- This reduction leads to a reduction in allergy symptoms, a reduction of problems in the airways and a decrease of medication, especially in children.<sup>2-5</sup>
- ACb encasings have been used in Sweden for more than 15 years. The purpose of the study was to evaluate how parents and children perceive the effect of the encasing with ACb.

## Method

- A questionnaire was sent to 125 families with mite allergic children who had used ACb encasing during the last 18 months.
- The questionnaire included questions about the disease, the type of symptoms and the medication, as well as about the comfort of encasing (fig. 1).
- The questionnaire was developed and the results were evaluated in collaboration with allergy nurses from two allergy clinics, with experience of the treatment of mite allergic children.

Fig.1 The questionnaire included questions regarding the disease, effect on the symptoms and medication and comfort.

## Study group

- 98 parents with a total of 102 mite allergic children answered the questionnaire.
- Data from 97 children was included and processed. 5 children were excluded from the analysis because of ongoing treatment with allergen immunotherapy.
- The mean age of the children in the study was 13 years (4 – 22 years old). The duration of mite allergy averaged 2.5 years from diagnosis. 74% of the children also had other allergies (fig.2)
- 50 children had asthma, 71 had rhinitis, 29 eczema and 32 reported other symptoms. (fig.3)
- Most families encased the mattress (99 %) and the pillows (100 %). 88 % also encased the comforter.
- 81 % of the children had used encasing between 12 and 18 months (fig. 4).

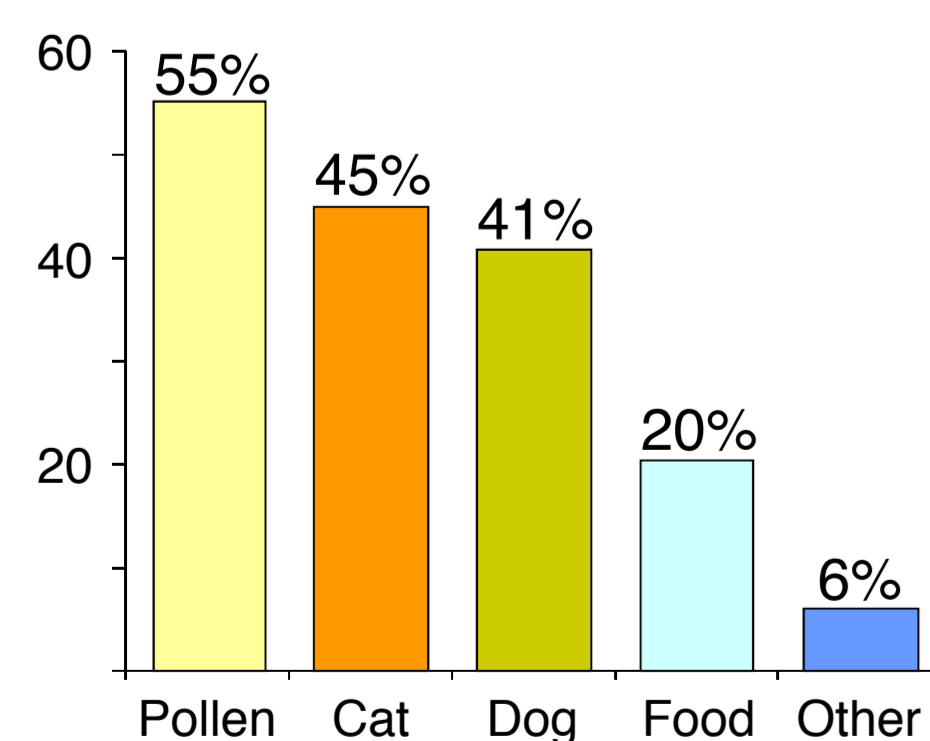


Fig. 2 74 % of the mite allergic children also had other allergies.

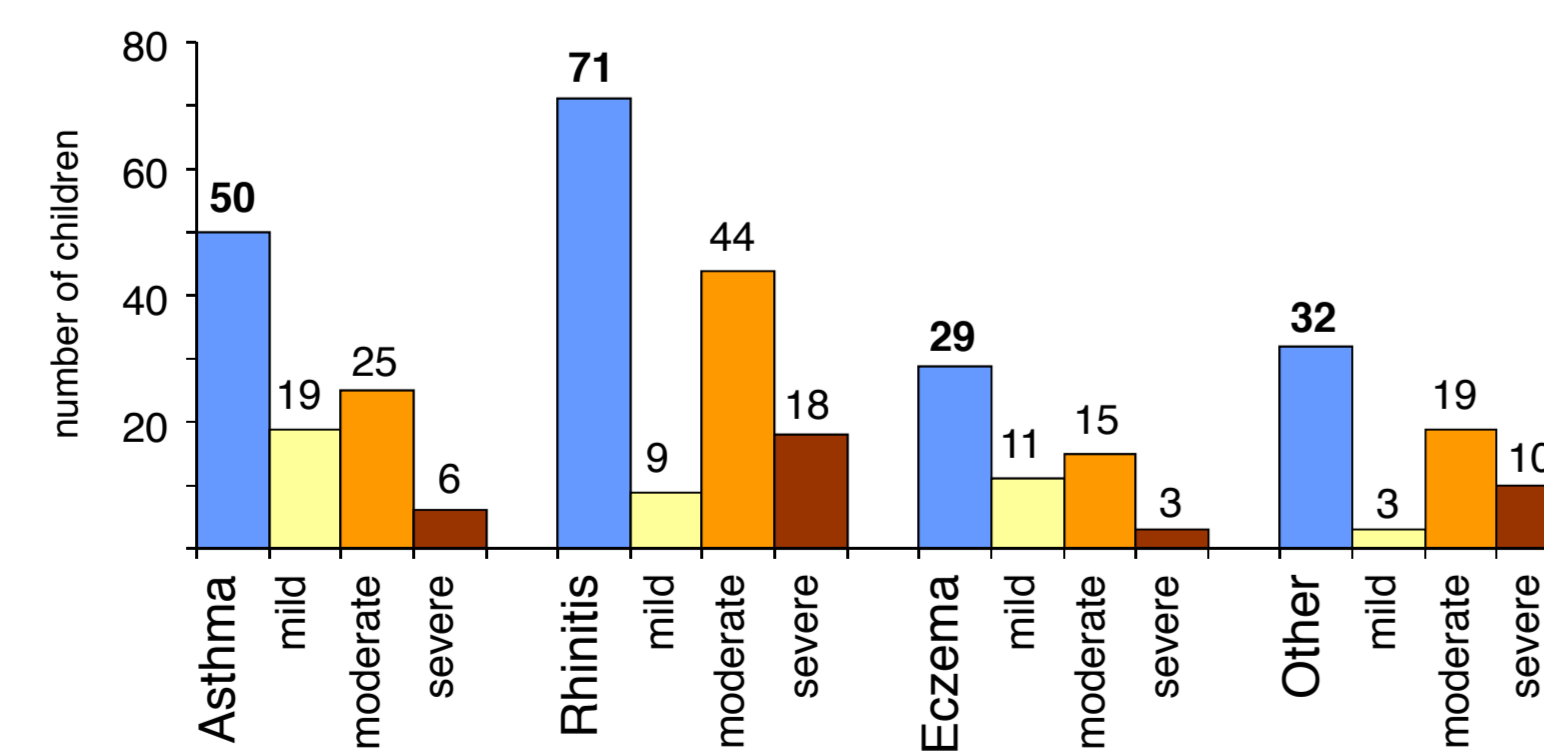


Fig.3 Type and severity of the symptoms among the children.

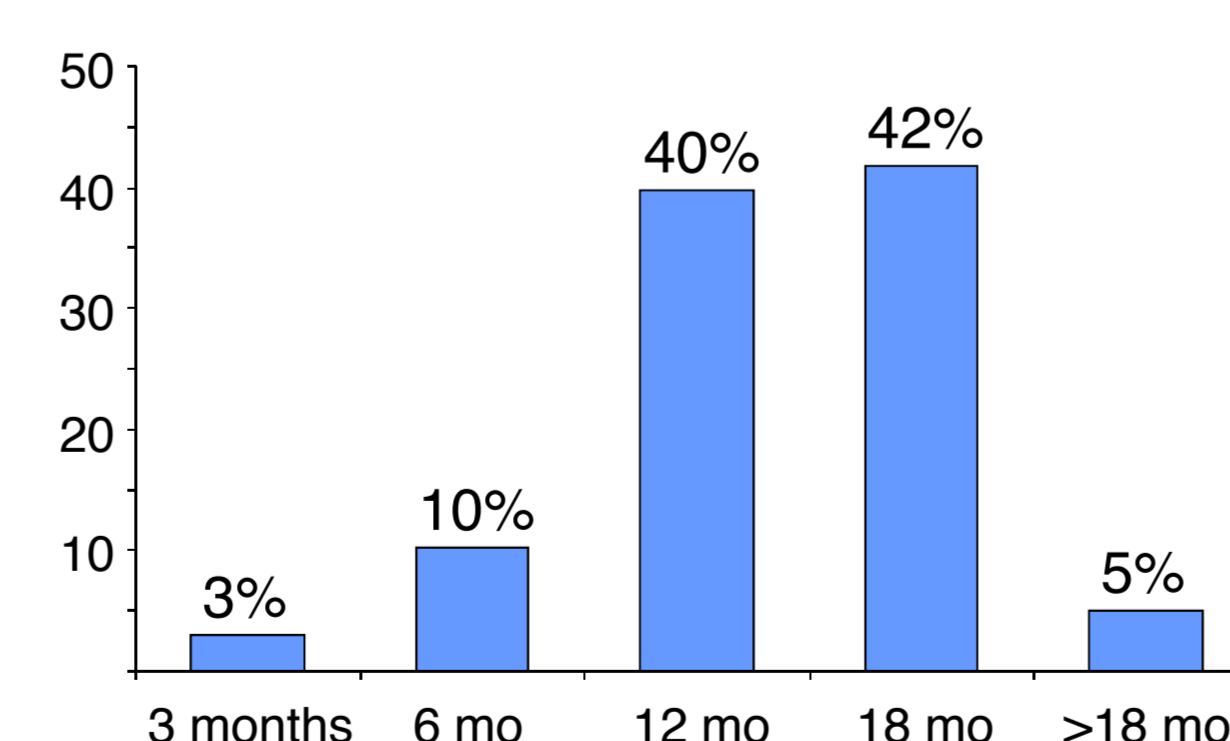


Fig. 4 Duration of the use of encasing among the children.

## Results

The results of the study demonstrate that parents evaluate the effect of encasing with ACb as very good:

- Improvement of allergy symptoms was reported in up to 88 % of the children. Improvement was seen in 79% among children with asthma, in 81% with rhinitis and in 76% of children with eczema (fig. 5).
- The consumption of medicines was reduced in 56% of the cases (fig. 6).
- The majority of the families (66%) reported that the child slept better when using encasing.
- 94 % considered the comfort of the ACb encasing good or very good (fig. 7) The few criticisms reported mostly concerned the encasing of the comforter.

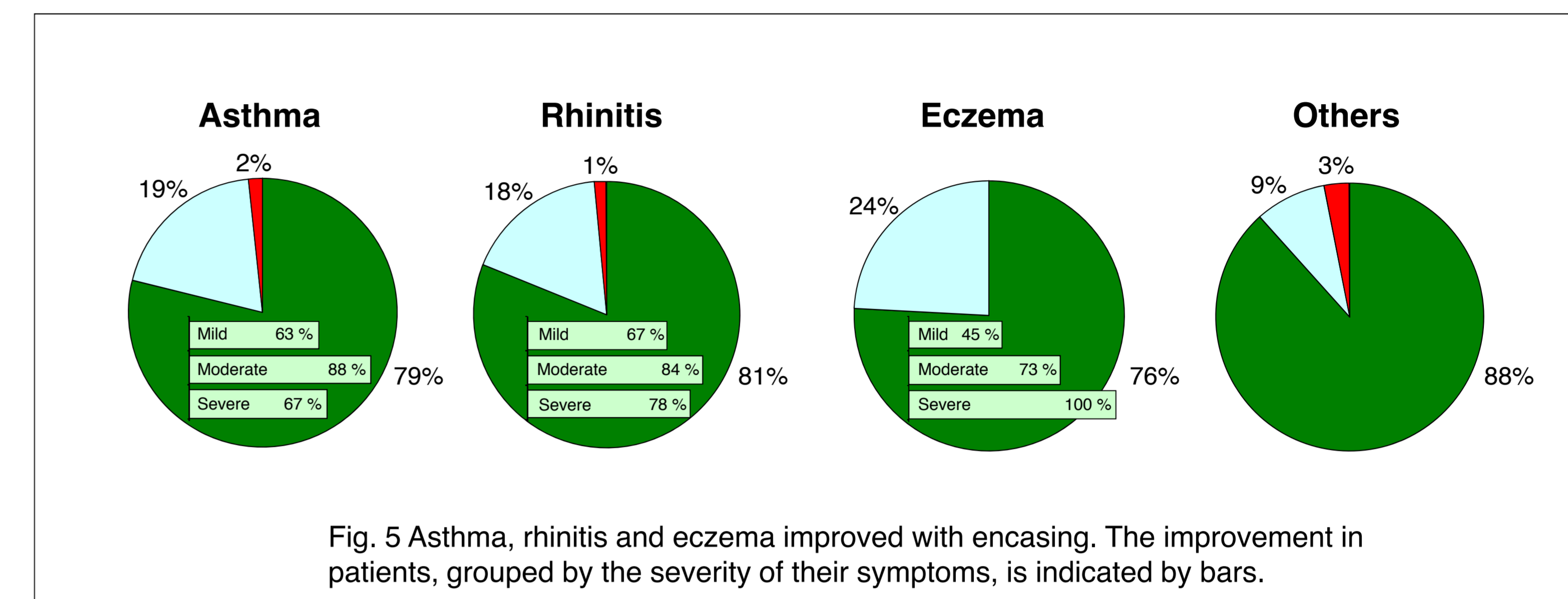


Fig. 5 Asthma, rhinitis and eczema improved with encasing. The improvement in patients, grouped by the severity of their symptoms, is indicated by bars.

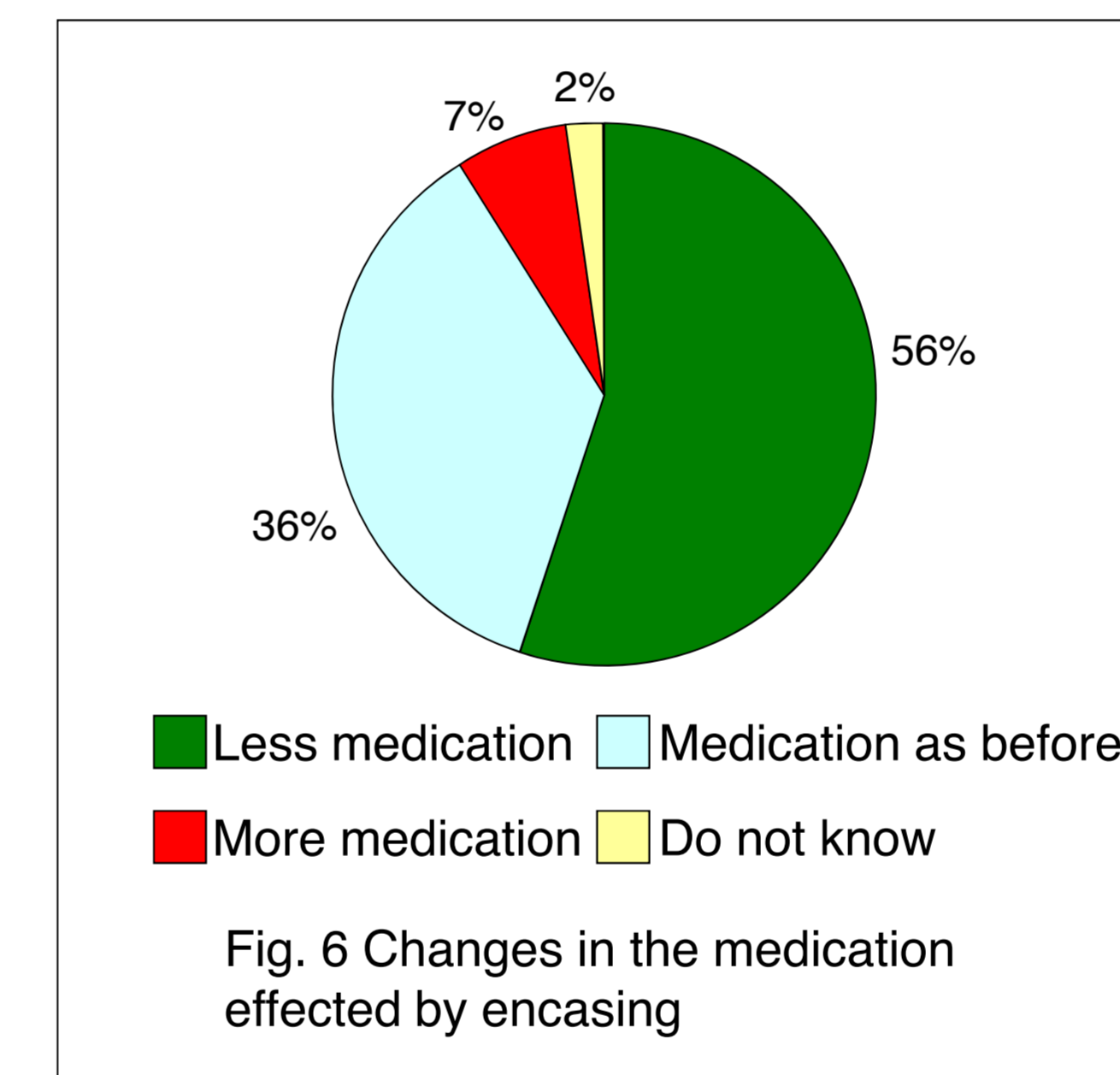


Fig. 6 Changes in the medication effected by encasing

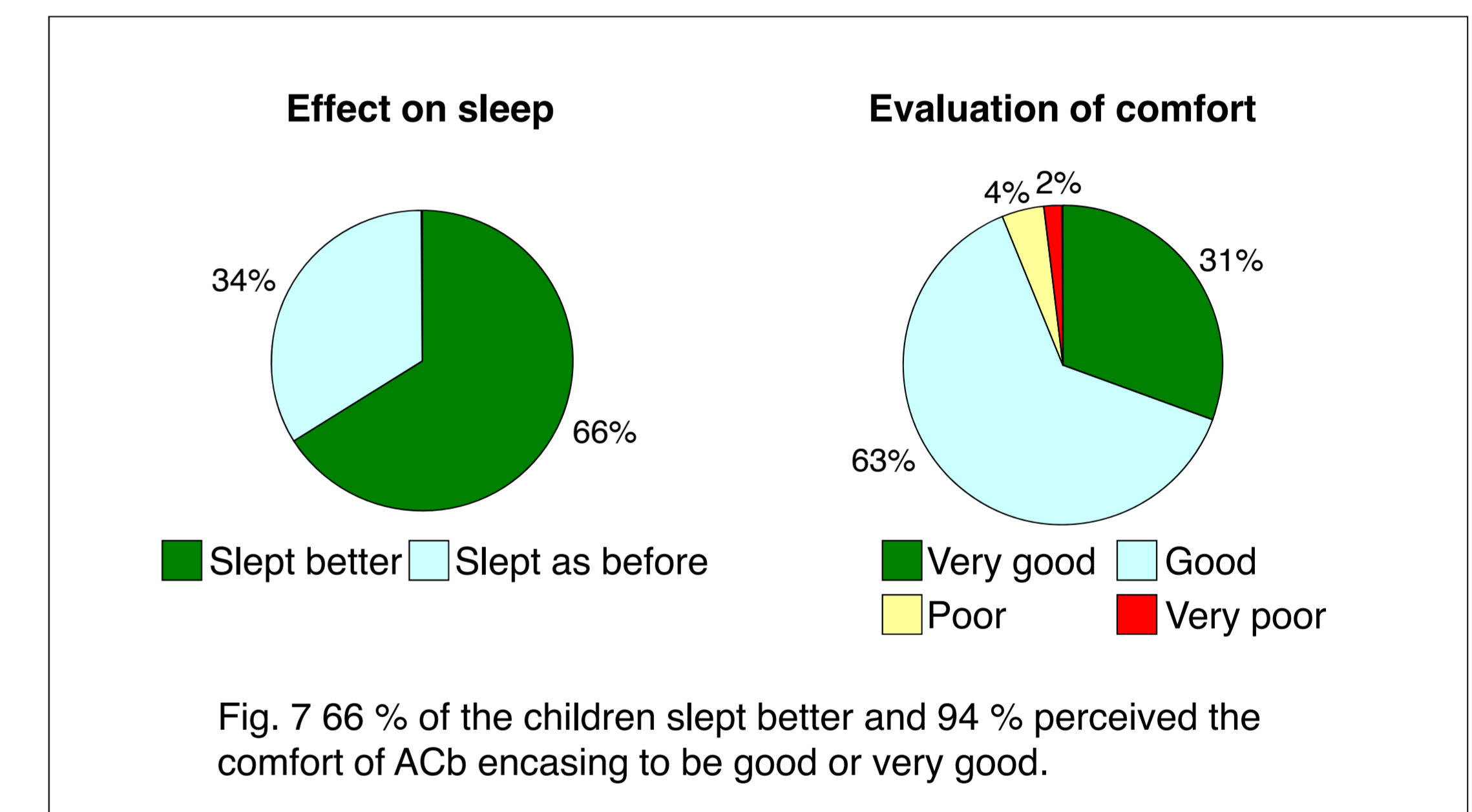


Fig. 7 66 % of the children slept better and 94 % perceived the comfort of ACb encasing to be good or very good.

## Summary

The effect of ACb encasing was follow-up by a questionnaire among 97 children with mite allergy. The study showed that:

- Parents reported improved allergy symptoms in up to 88% of the children and 56% reported a reduction in the use of medication.
- 94 % of the parents perceived the comfort of ACb encasing as good or very good.
- The results of this survey are in agreement with other clinical trials that show a very good effect of encasing in children with mite allergy.

## References

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