

THE SIGNIFICANCE OF MORGAN'S FOLD IN CHILDREN WITH ATOPIC DERMATITIS

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Abstract. Among 40 children with atopic dermatitis between 1-4 years 5 had Morgan's fold, whereas none among 40 controls. Among 60 children with atopic dermatitis with an age average of 8 years 4 had this sign and in matched control series 2 children.

Key words: Morgan's fold; Atopic dermatitis

In an age of ever increasing sophisticated laboratory tests and a computer type approach to patients, clinicians are more and more tempted to omit a physical examination. Clinical observation has become almost a lost art and many doctors allow their diagnostic powers to atrophy. Over the years many physical signs have been described as characteristic of various diseases. Some of these signs have vanished without trace but others have stood the test of time. It must be admitted that they cannot overrule the objective result of a measurable laboratory test. Nevertheless they should not be forgotten and the complete clinician, especially dermatologists, should always be ready to practice and sharpen their powers of observation.

In 1948 according to Morgan, Charles C. Dennie called the attention of his students and associates to the sign which he had observed to be rather pathognomic in most cases of allergy especially in persons with a history of eczema, hay fever, and asthma. This sign was a definite wrinkle just beneath the margin of the lower lid of both eyes. It is usually present at birth or shortly thereafter. It is retained through life. Rajka in his monograph on atopic dermatitis also draws attention to an infra-orbital crease similar to that seen in mongolism. He states that it can usually be observed in atopic dermatitis; it may occur more frequently in certain ethnic groups. Two modern text books also describe the sign. Weinberg, Leider and Shapiro in their illustrated textbook on paediatric dermatology illustrate a child with atopic dermatitis with what they describe as characteristic deep grooves in the

lower eye lids. Moschella, Pillsbury, and Hurley in their textbook on dermatology have also an illustration of a double fold under the eye which they state illustrates Morgan's fold, Dennie's fold or Mongolian fold. Thus the sign has been varyingly described as a wrinkle, crease, groove, and fold.

PATIENTS AND METHODS

It was decided to examine a series of children suffering from atopic dermatitis to find out the prevalence of the sign. Children between the age of 5 and 15 were examined. These children had a history of recurrent atopic dermatitis for a couple of years. There were 60 children in this series, 30 girls, and 30 boys, average age 8. At the same time a control series consisting of 60 children suffering from warts and with no history of atopy were examined. There were 37 girls and 23 boys, average age 9.

It is inevitable that in the evaluation of a clinical sign subjective impressions and bias must play an important part. In a clinical sign that depends on the presence of folds of skin and furrows, there must be gradations and variations. On examination of the children it was quickly apparent that some children showed rudimentary furrows and folds. Therefore, the problem arose as how marked had the furrows and folds to be before being classified as a positive sign.

It was decided that only children who demonstrated a definite double fold as illustrated in Moschella, Pillsbury, and Hurley's textbook should be taken as positive.

There were four positive cases in the series of atopic dermatitis and two positive cases in the control series. There was no correlation between severity of dermatitis and the presence of a definite wrinkle. There was also no history of rubbing of the eyes. In the atopic series 2 of the positive cases were boys and 2 were girls, and in the control series the 2 positive cases were boys.

Next forty children between the ages of one and four years with active atopic dermatitis were examined. In this series there were 21 males and 19 females with an average age of 1 year 8 months. A control series consisting of 40 children between the ages of one and four years were also examined, average age 1 year 5 months. There were 25 males and 15 females in the group. They were suffering from various diseases but none had an atopic condition. There were 5 positive cases, 3 boys and 2 girls in the atopic series and none in the control series.

RESULTS AND COMMENTS

It is not the purpose of this short communication to present any definite results, the figures are too small to come to any conclusion. Possibly cautious comment may be made on some aspects. It is interesting that the sign appears to be more prevalent in the younger atopic age group. Indeed some further cases examined but not included in this series confirm this trend. It poses the question of whether the sign can disappear as the atopic child grows older. Further follow up studies are necessary.

The purpose of this paper is rather to recall to mind Morgan's fold and to make a plea for retention of our clinical expertise. Perhaps truth like beauty is in the eye of the beholder, or in this case in the eye of the patient.

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DISCUSSION

Vickers (Liverpool). Q: It takes 15-20 years for most of Morgan's folds to disappear. Is it an abnormality in the eyelid or is it eczema localised to this area producing this double fold?

A: I never dared to take a biopsy. I agree with Dr Vickers. I would not dream of taking a biopsy in any of these cases. There is no correlation between the severity of the atopic dermatitis and there is no definite history of rubbing of this lesions, which is another possibility in keeping the fold growing by rubbing. I think possibly that it is associated with that rather rough pale skin which was characteristic of the atopic condition.

Atherton (London): I never saw Morgan's fold in any baby at all who did not have eczema.