THE DIFFICULTY CAUSED BY THE FRAGILITY OF THE OVA OF *ASCARIS LUMBRICOIDES*

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The standard textbooks of clinical pathology and of laboratory technique describe the typical ova of *Ascaris lumbricoides* as being easily recognized, but all refer to the difficulty in recognizing certain of the ova. The following observation may explain why it is sometimes so difficult to recognize them.

When searching for these ova it is convenient to work with relatively thick faecal emulsions and to make a preliminary search with a low power, a 1 in. or $\times 4$ objective, because of their very typical appearance and relatively large size and colour. If an ovum is seen it can be centred and examined with a $2/3$ or $1/6$ objective to confirm its identity. Todd and Sanford's (1948) description of the typical fertilized ova is that

"they are elliptic, measuring 45 to 60 by 60 to 75 microns, are yellow to brown in colour, and have an unsegmented protoplasm. There is usually a crescentic clear space at each pole, between the contents and the shell. The shell is moderately thick and smooth, and is covered with an irregular albuminous coating."

No mention is made here, or in any other book I have seen, of the ease with which the ova are broken and distorted. All ascaris ova appear to be equally fragile.

When making a routine examination of a faecal emulsion from a case known to harbour adult ascaris worms no ova could be found in several slides, and a drop of the faecal emulsion was then examined on a slide without a cover slip being placed over it. Several typical ova were then easily found, but what is now recognized to be an automatic, stereotyped, but at that time unconscious movement was observed when a cover slip was placed over this drop. The cover slip did not lie absolutely flat; air bubbles were caught under it and these were gently squeezed out by slight pressure on the cover slip with a pencil point. When this had been done no typical ova were to be seen. A cover slip was then placed

gently on another drop of the faecal emulsion. Under the 1 in. objective a typical ovum was moved to the centre of the field, and, while the ovum was observed, light pressure was exerted

with a pencil point. The ovum was seen to burst, the granular contents flowed out, and the general appearance was completely altered when the pressure was released. The photographs illustrate the changes that occur: A is the untouched ova, B after very light pressure, and C after the slightly greater pressure that is usually exerted to make the cover slip lie flat.

This observation may explain why some ascaris ova are difficult to recognize, and it would be best when looking for these ova to make a conscious effort to avoid exerting any pressure on the cover slip.

I should like to thank Mr. J. G. Williamson, the photographer to the Birmingham Children's Hospital, for his co-operation and excellent photographs.

REFERENCE

Todd, J. C., and Sanford, A. H. (1948). *Clinical Diagnosis by Laboratory Methods*, 11th ed. London.

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