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

BY
K. B. ROGERS
From the Children's Hospital, Birmingham
(RECEIVED FOR PUBLICATION APRIL 17, 1952)

The standard textbooks of clinical pathology
and of laboratory technique describe the typical
ova of Ascaris lumbricoides as being easily recog-
nized, 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 ×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 uncon-
scious 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
ova 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 ovum, 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

SCHOLARSHIPS IN AID OF SCIENTIFIC RESEARCH

The Council of the British Medical Association is prepared to receive applications for Research Scholarships, as follows:

An Ernest Hart Memorial Scholarship, of the value of £250.

A Walter Dixon Scholarship, of the value of £250.

One or More Research Scholarships, each of the value of £200.

These scholarships are given to candidates whom the Science Committee of the Association recommends as qualified to undertake research in any subject (including State medicine) relating to the causation, prevention, or treatment of disease.

In addition, applications are invited for the award of the following research scholarship:

The Insole Scholarship, of the value of £250, for research into the causes and cure of venereal disease.

Each scholarship is tenable for one year, beginning on October 1, 1953. A scholar may be reappointed for not more than two additional terms. A scholar is not necessarily required to devote the whole of his or her time to the work of research, but may be a member of H.M. Forces or may hold a junior appointment at a university, medical school, or hospital, provided the duties of such appointment will not, in the opinion of the Science Committee, interfere with his or her work as a scholar.

Applications for scholarships must be made not later than March 31, 1953, on the prescribed form, a copy of which will be supplied on application to the Secretary, British Medical Association, B.M.A. House, Tavistock Square, London, W.C.1.

Applicants are required to furnish the names of three referees who are competent to speak as to their capacity for the research contemplated.