Wegener’s granulomatosis

<table>
<thead>
<tr>
<th></th>
<th>Positive (D)</th>
<th>Negative (D)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive (F)</td>
<td>18</td>
<td>3</td>
</tr>
<tr>
<td>ANCA test</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative (F)</td>
<td>5</td>
<td>214</td>
</tr>
</tbody>
</table>

**Diagnostic specificity**

\[ \text{P}(\text{D|F}) = \frac{18}{21} = 86\% \]

\[ \text{P}(\text{D|F°}) = \frac{214}{217} = 99\% \]

**Nosological sensitivity**

\[ \text{P}(\text{F|D}) = \frac{18}{23} = 78\% \]

\[ \text{P}(\text{F|D°}) = \frac{214}{217} = 99\% \]

**Nosological and diagnostic sensitivity and specificity of the test for antibodies to neutrophil cytoplasmic antigens (ANCA)**

used to assess the likelihood of disease according to the result of the test so long as the probabilities of disease in the diagnostic setting and in the patients studied for the paper are similar.

On the other hand, nosological values of sensitivity and specificity are of limited direct relevance to the practising physician, who would need to convert these probabilities to the clinically relevant probabilities using Bayes’s formula. This conversion is to a large extent dependent on the prior probability of disease in the clinical population studied and this is rarely known. There is a lot to be said for collecting data in a realistic clinical setting, as the authors have done, and quoting diagnostic specificity and sensitivity, rather than evaluating a new test in a group of patients who are known to have the disease in question and comparing this with the results in a group of normal people. In these circumstances the nosological value would be more appropriate.

Taking the bright, coarsely granular pattern as positive, the authors found that the result of the test was positive in 18 patients with Wegener’s granulomatosis and in three who did not have the disease. The result was negative in five patients who had active Wegener’s granulomatosis and in 214 other patients, in most of whom, from the limited details given, Wegener’s granulomatosis might have been initially suspected but was not subsequently confirmed. On the basis of these figures (table) the nosological sensitivity is 78%, the nosological specificity 99%, the diagnostic sensitivity 98%, and the diagnostic specificity 86%. It would seem that the authors have quoted the nosological sensitivity with the diagnostic specificity. I would suggest that it would be more appropriate for them to have quoted the diagnostic sensitivity of 98%—which, as an added bonus, looks even better than the quoted sensitivity of 78%.

**GW BRADLEY**
**William Harvey Hospital**
**Ashford**
**Kent TN24 0LZ**


**AUTHOR’S REPLY** I am grateful for the clear explanation of nosological versus diagnostic sensitivity and specificity. In our report we aimed to show primarily the significance of a positive result in the test for antibody to neutrophil cytoplasmic antigens as a diagnostic aid for Wegener’s granulomatosis. A sizeable proportion of biopsy proved cases, however, were antibody negative—hence our reluctance to quote a diagnostic sensitivity, or negative predictive value, of 98% because of the danger of a delay in diagnosis as a result of undue weight being attached to a negative result. Prompt diagnosis and early treatment are essential to prevent long-term complications in Wegener’s granulomatosis,1 and negative laboratory results should not be assumed to exclude the diagnosis if there is persistent suspicion on clinical grounds.2

**DJ HARRISON**
**Department of Pathology**
**University Medical School**
**Edinburgh EH8 9AG**


**Book notices**


In recent years the comprehensive textbook of general medicine, aimed at the practising physician, has made a dramatic comeback—largely, I suspect, being used for a brief overview of areas outside the everyday experience of the reader. But this reviewer realises that over the same period he has relied very little on the larger textbooks in his own speciality of respiratory medicine. This new multi-author textbook presents over 2000 double column pages of information in two volumes (but there are two larger North American multi-volume textbooks on respiratory medicine). The contributors are well known academic leaders in their subjects, mainly from the United States but with representatives from England, Canada, and Australia. About one third of the textbook is devoted to basic science and techniques and the remainder to clinical topics, which are arranged separately under conventional headings but with...
some useful shorter chapters on the general approach to diagnosis in given areas. Many of the sections and chapters are small monographs in their own right: 150 pages are devoted to respiratory physiology (and a further 70 to pulmonary function testing) and 50 page chapters to viral infections and mycobacterial disease, all backed by extensive bibliographies. The layout and illustrations are in general admirably clear, though some radiographs fail to make their point in reproduction. This impressive textbook sets out the enormous information base now available in respiratory medicine, which the patient hopes underpins our approach to practical diagnosis and management. If this increase in basic information is followed by a similar scale of advance in treatment, subspecialisation cannot be far over the horizon—NBP


This little book (about 5 × 7 inches) forms part of the “Colour Aids” series and aims to provide a basic text on one side of each page with, usually, three or four illustrations on every facing page. The book is intended to cover respiratory medicine at a level suitable for senior medical students, junior hospital doctors, and allied professionals. The text is well laid out with wide margins containing clear headings, but this does mean that most of the subjects need at least five pages and one tends to lose one’s way a little when concentrating on one subject. This arrangement also means that the book has had to be liberally supplied with pictures of patients, radiographs, equipment, pathological specimens, and histological sections. The main weakness is the tremendous variability in both the quality and the suitability of the pictures. Though many are excellent there are also some that are either of poor quality or totally inappropriate for the intended readership—for example, a radiograph from a patient with MacLeod’s syndrome suddenly appearing in the section on chronic obstructive pulmonary disease, many unexplained photomicrographs, and some very strange examples of a normal chest radiograph, simple pneumothorax, and miliary mottling. The unenlightened student is likely to remain unenlightened after consulting the appendix on normal lung histology, which shows two pairs of unlabelled photomicrographs at different powers. Although there is much that one might quibble with, the basic idea seems a good one for student readers and many respiratory physicians will undoubtedly buy several copies for the junior members of their team. It would probably be advisable to flick through the book before placing a large order in case the format or some of the pictures proved too irritating. It is to be hoped that the book will be popular enough to demand a reprint and an opportunity to review some of its “colour aids.”—JEH

Correction

Ventilation-perfusion mismatching in acute severe asthma: effects of salbutamol and 100% oxygen

In the paper by E Ballester et al (April 1989;44:258–67) in the legend to figure 2 on page 263, penultimate and last lines, the symbols are reversed: ● — — — — ● should be “perfusion” and ○ — — — ○ should be “ventilation.”

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