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## Rheumatoid nodules

The recent Leader on rheumatoid nodules by Veys and De Keyser<sup>1</sup> gave a very interesting and useful review of the subject. When I was working as a medical registrar with Dr Bernard Schlesinger at the Royal Northern Hospital in pre-war London, one of my tasks was to carry out routine nodule counts on children with rheumatic fever (a not uncommon disorder in those days). Dr Schlesinger had found that these nodules, particularly in younger children with more serious disease, carried a worse cardiac prognosis.<sup>2</sup> At that time there was considerable interest in the possible relation of rheumatic fever to rheumatoid arthritis. A recent report by Fink<sup>3</sup> considers post-streptococcal reactive arthritis to be a form of

rheumatic fever, though arthritis or arthralgia is of a more prolonged nature appearing early after infection.

Massell *et al*<sup>4</sup> reported in 1937 that nodules closely resembling those of rheumatic fever could be produced by injecting 3 cc of a patient's blood subcutaneously into the soft tissue of an elbow followed by rubbing the injected area six times daily; nodules appeared in 37 of 82 of their patients (45%). I was unable to confirm these findings<sup>5</sup> in 40 children with rheumatic fever in acute or convalescent stages, five children with chronic juvenile arthritis (Still's disease), and 10 adults with rheumatoid arthritis, three of whom had already developed rheumatoid nodules over one elbow. Veys and De Keyser report that rheumatoid nodules are found most commonly at sites of mechanical irritation and friction and we found the same to be true of nodules in rheumatic fever, but could not produce them experimentally.

Considerable interest was shown during the 1930s and 1940s in rheumatoid nodule formation. Collins,<sup>6</sup> Parkes Weber<sup>7</sup> in the United Kingdom, and Horowitz<sup>8</sup> in South Africa had worked and written on the subject,

but my efforts to reproduce them experimentally failed miserably!

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