present a case of total knee replacement in which infection developed 8 yr after the original operation.

A 75-yr-old diabetic lady underwent total arthroplasty of the left knee in March 1990 for rheumatoid arthritis. Her postoperative recovery was uneventful, and her knee remained symptom-free for 8 yr. However, in February 1998 she was admitted with a painful, swollen left knee. This happened a week after an episode of diarrhoea and vomiting, which the patient attributed to a meal of fish and chips. She had been on oral steroids for several years (deflazacort). On admission she was febrile (38°C) and had a swollen and tender left knee. The blood tests showed a high white blood cell count \( (21.4 \times 10^3/\mu l) \) and the erythrocyte sedimentation rate was 108 mm in the first hour. There was no growth from stool culture. Gram-negative bacilli grew from a blood culture and the knee aspirate showed growth of \textit{S. enteritidis} (phage type 4) on enrichment culture. Although plain X-rays of the knee were unremarkable (Fig. 1), bone scanning revealed increased technetium radioisotope uptake around the tibial and patellar prosthesis, suggestive of infection (Fig. 2). The patient received ciprofloxacin (500 mg b.d.) for 6 weeks, which controlled her symptoms well. She developed a further flare-up of the symptoms 15 months later and the knee aspirate again grew \textit{Salmonella} species \((09:G)\). She was given ciprofloxacin for 3 months, which made her symptom-free. Radiographs of the knee showed no changes suggestive of loosening of the implant or bone infection. No further recurrence of symptoms has been reported. We plan to treat her conservatively until she is asymptomatic, although further intervention in the form of removal of metalwork from her knee may have to be considered if the symptoms recur.

Although haematogenous infection of a joint prosthesis can occur any time after surgery, Gram-negative

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{knee_radiograph.jpg}
\caption{Radiograph of knee. There are no obvious signs of bone infection.}
\end{figure}

\textbf{Salmonella enteritidis infection in total knee replacement}

Sir, \textit{Salmonella enteritidis} infection of the joints is very rare and only a handful cases have been reported [1–3]. Non-typhoid salmonella infection is more common in Western countries because animals are carriers of the bacteria [4]. Immunosuppression is said to be a major contributing factor in the majority of these cases. We
Because the organisms persist in the synovial cavity, prolonged treatment is necessary for complete recovery.

This report is of interest not only because Gram-negative organisms are rare as a cause of septic arthritis but also because it highlights the role of bone scanning and microbiological testing in diagnosing an infected joint replacement when the X-ray is normal.

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