

An abnormal serum protein electrophoresis

J.E.M. Schilders*, A.P. Rietveld, H.C.T. van Zaanen

Department of Internal Medicine, Sint Franciscus Gasthuis, Rotterdam, the Netherlands,
*corresponding author: tel.: +31(0)10-4616161, fax: +31(0)10-4612692, email: j.schilders@sfg.nl

CASE REPORT

A 29-year-old woman, with a medical history of vitamin D deficiency as well as an iron deficiency due to hypermenorrhoea, presented to our outpatient clinic with fatigue and an elevated erythrocyte sedimentation rate (ESR). She was referred by the family doctor to exclude an underlying disease. Besides feeling tired, which had existed for years and was normally aggravated during winter, she had no other symptoms. Physical examination was unremarkable. Laboratory investigations showed: C-reactive protein 3 mg/l (0-10), leucocytes $7.7 \times 10^9/l$ (4.3-10.0), ESR 33 mm/h (0-20), vitamin D 18.5 nmol/l (> 50), total protein 64 g/l (60-80), albumin 37.3 g/l (36.8-45.9). Serum protein electrophoresis was performed (figure 1A and table 1). Chest X-ray and an abdominal ultrasound were normal.

WHAT IS YOUR DIAGNOSIS?

See page 258 for the answer to this photo quiz.

Table 1. Serum protein electrophoresis fractions

Fractions	%	g/l	Ref. g/l
Albumin	58.3	37.3	40.2-47.6
Alpha 1	4.2	2.7	2.1-3.5
Alpha 2	9.5	6.1	5.1-8.5
Beta	10.6	6.8	6.0-9.4
Gamma	17.4	11.1	8.0-13.5

Figure 1A. Serum protein electrophoresis performed on our patient

