Fever Of Unknown Origin A Prospective Study In Northern Iraq

Abstract

Objectives: A wide variety of diseases are likely causes of fever of unknown origin (FUO). No fixed guidelines exist to direct the workup in these cases. We followed a diagnostic protocol to study the causes of FUO in Iraq, and to evaluate the contribution of clinical assessment and various investigations in making the final diagnosis.

Methods: From March 2002 to September 2009, fifty five consecutive patients with FUO were admitted in a tertiary referral centre in Mosul, Iraq. The patients underwent a series of clinical and diagnostic evaluation in a prospective study, in an attempt to diagnose the underlying cause of fever. The benefit of history taking and clinical examination as directors of the diagnostic workup and the yield of various laboratory and imaging techniques were assessed.

Results: Infections were the commonest causes of FUO (32.7%), followed by non-infectious inflammatory diseases (NIID) (25.4%), malignancies (16.4%) and miscellaneous causes (5.4%). No diagnosis was made in 20% of cases. Of infections, tuberculosis was the most important single cause of fever, while various vasculitides and non-Hodgkin’s lymphoma were the commonest NIID and malignant disease, respectively. Symptoms of the patients were of little benefit in directing subsequent investigations, but the physical signs were more useful; finding enlarged lymph nodes was significantly associated with malignant diseases (p=0.009). Anaemia, high ESR and elevated liver enzymes were common and bear no significant association with any disease category. Chest radiograph and abdominal ultrasound were helpful initial imaging studies. CT scan of the chest was shown a useful diagnostic procedure.

Conclusion: Together with infections, NIID are important causes of FUO in Iraq. Careful physical examination and a systematic approach on investigations are usually rewarding in reaching the diagnosis.