Editor’s choice: cardiovascular disease and rheumatoid arthritis

It is important to consider patients who present to specialist services as individuals whose primary diagnosis may have implications for the development of other disease processes. This is particularly the case with rheumatoid arthritis (RA). Patients who have this chronic debilitating systemic disease are at increased risk of a range of morbidities including cardiovascular disease. This association has been appreciated for some time. The spectrum of cardiovascular disease in RA is broad and includes atherosclerosis, vasculitis and pericarditis. The review by Pieringer explores the relationship between the two disease entities. With respect to aetiology, it is now thought that in addition to traditional cardiovascular risk factors, inflammation may be the most significant underlying cause. For this reason, some but not all anti-inflammatory drugs may be of benefit. The authors also discuss the implications of their literature search for practical clinical management. Sadly, there is a paucity of clear evidence regarding the best preventative and therapeutic interventions needed to reduce the risk of adverse cardiovascular outcome in RA patients. As a minimum, it is argued that cardiovascular risk assessment should be an integral part of the continuing care of this patient group. In summary, there is now enough evidence for us to consider a more integrated and systematic approach for RA patients in order to prevent or reduce cardiovascular morbidity.

Volaemic assessment of the hyponatraemic patient

The paper by Hoyle has a physiological theme and describes an attempt to assess volaemic status in older patients with hyponatraemia. We know that hyponatraemia is the most commonly encountered electrolyte disorder among hospital in-patients, particularly the elderly. The underlying causes are many (including iatrogenic) and are often interrelated. The symptoms, especially in milder cases, are vague and non-specific. Previous studies published in this journal have documented the increased morbidities associated with low levels of sodium. Prompt identification and effective clinical assessment is therefore important in this context. The paper helpfully begins with basic physiological principles: hyponatraemia results from an imbalance between levels of plasma water and sodium and in many cases represents an abnormality of water volume rather than sodium regulation. Low levels of plasma sodium can occur in hypervolaemic, euvolaemic and hypovolaemic patients. It follows that accurate assessment of a patient’s volaemic status is a critical part of clinical management. Clinical tools for the assessment of volaemic status are many and include capillary refill, skin turgor and tongue moistness. A laboratory standard for the estimation of total body water is the measurement of dilution of the isotope deuterium oxide in water. Deuterium dilutional analysis (DDA) is both expensive and relatively impractical. A newer technique is described: bioelectrical impedance analysis (BIA) and this is based upon the principle that impedance opposed to a weak alternating current applied across the body is proportional to total body water. The researchers attempted to firstly determine the reliability of clinical assessment of volaemic status by measuring inter-observer variability and secondly they assessed the validity of BIA as a tool to measure total body water in elderly hyponatraemic patients. It was found that agreement between clinical observers was at best moderate but that total body water estimation by BIA had a good correlation with DDA. It must be remembered that the number of patients was relatively small in this study and further work is needed to validate BIA as a reliable tool in this context. Perhaps the most useful finding is that traditional clinical methods used for determination of volaemic status appear to be of limited reliability.
Chronic kidney disease in primary care

The journal has previously published research which confirmed that under certain circumstances patients with chronic kidney disease could be safely and appropriately managed in primary care. The study by Meran and colleagues from Cardiff examined the overall outcome of CKD patients who were discharged to primary care. It should be noted that a renal patient care pathway was defined, implemented and evaluated as part of this study.

Reassuringly, it was found that selected CKD patients can be appropriately discharged from secondary care and be adequately monitored in primary care with minimal risk. One wonders about the application of this approach on a more general basis. Health care provision is moving towards a more community orientation. Definition of appropriate protocols between primary and secondary care may facilitate this paradigm shift.

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