Tubular Proteinuria Markers for Detecting the Site of a Urinary Tract Infection

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Dear Sir,

I was disturbed to read yet another paper (Nephron 32: 234–238, 1982) claiming to have identified urinary markers which indicate the site of a urinary tract infection (UTI). However, the ‘usual’ diagnostic criteria used by Mengoli et al. (clinical picture, intravenous pyelogram, renal function assessment) to assess the site of infection are completely unreliable.

It has been repeatedly demonstrated that about one half of patients with either covert bacteriuria or bacterial cystitis have bacteria present in the upper urinary tract. The pattern of symptoms and the presence of normal renal function and a normal intravenous urogram are of no value in determining the site of infection in these two clinical situations. A radiological abnormality of the upper urinary tract cannot be used to conclude that the site of a UTI is in the kidney. For example, the coarse focal or generalized scarring of reflux nephropathy (chronic pyelonephritis) simply reflects the end result of gross vesico-ureteric reflux in infancy and early childhood. A coexisting disturbance of glomerular filtration rate is no guide to the site of a UTI.

It is essential that any investigator using a test proposing to indicate the site of a UTI must compare this method with one of the established invasive techniques which actually demonstrate bacteria either within or coming from the kidney (e. g. ureteric catheterization, bladder washout test, direct needle aspiration).

Is it really necessary for clinicians to know the site of a UTI that they are treating ? In this department we feel that there are very few clinical situations in which it is of any value to attempt to localize a UTI.