Six of the seven ruminating patients subsequently received treatment for bulimia nervosa. Those who successfully regained control over eating also stopped ruminating. No specific treatment techniques appeared to be necessary.

Comment

While habitual rumination may occur in the absence of psychiatric disorder,¹ our findings indicate that it is present in a substantial minority of patients with bulimia nervosa and that such patients are particularly likely to have had anorexia nervosa in the past. Since the prevalence of bulimia nervosa among young adult women may be in the region of 1%,⁵ habitual rumination is probably more common than has been generally thought. Yet even when it occurs as a feature of bulimia nervosa it may remain undetected, since it is not always reported by the patient.

Interestingly, in patients with bulimia nervosa rumination is distinctive because there is a tendency to spit out the regurgitated food at regular intervals. This may be attributed to these patients' desire to avoid absorbing what they have eaten, which in turn is secondary to their profound fear of becoming fat.

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Initial screening of children with urinary tract infections: is plain film radiography and ultrasonography enough?

When a child presents with a possible urinary infection general procedures are: taking the clinical history, examination (including examination of urine by microscopy and culture), and treatment with the appropriate antibiotic. A condition requiring an operation may be obvious on examination—for example, urethral valves in a boy with a palpable bladder. If the diagnosis is not clear, however, there is little consensus about the investigations needed in children with proved urinary infections. Some workers argue that such infections are so common that a first episode need not be investigated: any underlying abnormality of the urinary tract will declare itself with a second or third infection. Others press for investigation of all first infections so that nephrons are saved and the diagnosis and prognosis understood. The tests used may be unpleasant (for example, micturating cystography) as well as potentially dangerous (for example, intravenous urography). We carried out a study to test the value of abdominal plain film and ultrasound imaging as screening tests.

Patients, methods, and results

We prospectively investigated 50 children aged over 6 months who attended hospital with suspected or already diagnosed urinary infections (or other relevant symptoms). All were referred for intravenous urography, most from a paediatric urology clinic (RHW), but others from general paediatric clinics. The findings on the plain film of the intravenous urogram series and on urinary tract ultrasound scanning were judged by one of us

(TS) without knowledge of subsequent tests. Real time ultrasound examination was carried out by two experienced, qualified ultrasonographers, who recorded multiple images. In doubtful cases one of us (TS) took part in scanning. Particular attention was paid to the full bladder and the lower ureters behind it.

The table compares findings on ultrasonography and intravenous urography. The predictive value of normal findings on ultrasound scanning was high (90%), but we missed four children with upper urinary tract abnormalities (two with renal scars and no reflux, one with intermittent ureteric distension and possible neuropathy, and one with bilateral reflux whose sibling had reflux). Abnormal findings on the ultrasound scan were less predictive, with an incidence of false positive results of 30%. Such errors are of less concern as they lead only to unnecessary intravenous urography.

Comparison of findings on intravenous urography and ultrasound scanning in 50 children (30 girls, 20 boys, mean age 7 years)

Results of ultrasound scanning	Results of intravenous urography	
	Abnormal	Normal
Abnormal	7	3
Normal	4	36

χ^2 with Yates's correction = 13.47; $p < 0.001$.

Predictive value of normal finding on ultrasound scanning = 90% (36/40); rate of false negative results = 10% (4/40); specificity = 92% (36/39).

Predictive value of abnormal finding on ultrasound scanning = 70% (7/10); rate of false positive results = 30% (3/10); sensitivity = 64% (7/11).

Comment

Children with urinary tract infections are screened to find surgically remediable causes—that is, urinary stones and congenital anomalies of drainage such as hydronephrosis, megaureter, or duplex lesions. These findings are rewarding compared with the finding of reflux nephropathy, the complex disorder linking vesicoureteric reflux and renal scarring, formerly called chronic pyelonephritis. Two decades ago there was a strong drive for diagnosis of this condition and for reimplanting most refluxing ureters to guard against further or potential renal damage. Subsequently it was established that any renal scarring was already determined when the child first presented.¹ Reflux itself tends to improve spontaneously.² In schoolgirls neither reflux nor covert bacteriuria contribute to the progression of kidney damage.³ With conservative measures reflux nephropathy generally runs a benign course, and the role of operation needs critical appraisal⁴: a recent report suggested that it offers little if any benefit.⁵

Plain film radiography and ultrasound scanning are useful in screening for correctable causes of children's first urinary infections such as renal stones or major drainage anomalies. Some cases of reflux nephropathy will be missed, but such errors may not be clinically important. We do not hesitate to go on to further investigations, including nuclear medicine studies, if there is uncertainty about a diagnosis. We consider that intravenous urography remains a diagnostic touchstone in paediatric urology and use it readily when appropriate. In many children with a first urinary infection, however, this unpleasant test can now be avoided.

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