A month later he was readmitted complaining of fever, malaise, and lethargy. Intravenous pyelography disclosed a non-functioning left kidney, and retrograde studies on the left side showed a stricture of the ureter at the level of L4. Laparotomy confirmed continued blockage of the ureter by dense fibrous tissue and also a small abscess at the site of the T-tube ureterostomy. Left nephrectomy was performed. Histological examination of the kidney showed severe acute pyelonephritis secondary to ureteric obstruction. This was considered to be a complication of the T-tube ureterostomy.

Comment

While neither metoprolol nor nifedipine can be incriminated with certainty, the fact that several cases of retroperitoneal fibrosis have been associated with other beta-adrenergic blocking agents suggests the metoprolol may have been responsible for the condition in this case. The incidence of retroperitoneal fibrosis in the middle-aged, however, is still unknown, and, as beta-blocking drugs are now widely used to treat hypertension and angina, some "idiopathic" cases will inevitably occur in patients taking these drugs.

Finally, we emphasise that there appears to be no relation between retroperitoneal fibrosis and the fibrosing peritonitis that is an integral part of the mucocutaneous syndrome attributable to practolol.

We thank Mr R Hall for permission to report surgical details of this case, and both Mr Hall and Dr R Wilkinson for their help and advice in the management of this patient.

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(*Accepted 22 September 1981*)

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Risk of hepatitis B virus infection in patients with eczema or psoriasis of the hand

Although hepatitis B virus is usually transmitted parenterally, many cases of infection occur in which overt parenteral contact with the virus cannot be shown. Faecal-oral spread of the virus is effectively blocked by an inhibitory substance present in the intestine and faeces of normal subjects.[1-4] To explain hepatitis B virus infection in the absence of overt parenteral exposure the "inapparent parenteral route" has been postulated. This term is used to indicate the penetration of virus into the organism through cutaneous and mucosal microlesions. Peroral infection with hepatitis B virus through microlesions in the oropharyngeal mucosa has been shown experimentally in chimpanzees.[5]

We think that skin lesions due to diseases such as psoriasis or eczema should also be considered as possible routes of entry for hepatitis B virus. The virus is present in biological fluids of carriers and could easily come in contact with lesions especially on the hands. We carried out a study to test this hypothesis.

Patients, methods, and results

Eighty-one patients with chronic eczema or psoriasis of the hand and with fissured lesions on the palm were divided into two groups. The first group (40 patients; 16 men and 24 women) had had eczema or psoriasis of the hand for less than two years. The second group (41 patients; 13 men and 28 women) had had the condition for more than two years. We chose 256 normal subjects (111 men and 145 women), comparable in sex, age, and socioeconomic background to serve as controls.

The patients and controls were tested for hepatitis B surface antigen (HBsAg), anti-HBs, and anti-hepatitis B core antigen by radioimmunoassay. Previous contact with hepatitis B virus was assumed if at least one of the markers tested for was present. The results were analysed by the χ^2 test (table). When the prevalence of HBsAg was considered a higher value was found in patients who had had skin lesions for more than two years. No significant difference between the groups was observed, however. When the prevalence of positivity for one or more markers including HBsAg was examined a significant difference was observed between controls and patients who had had skin lesions for more than two years.

Comment

These results show that a higher risk of infection with hepatitis B virus exists in patients with chronic skin diseases. This phenomenon is probably particularly evident in the Naples area, where the prevalence of HBsAg in the general population is high (4·18%). The environment is thus rich in hepatitis B virus, facilitating penetration of virus through lesions or microlesions of the skin. This is another example of transmission of infection by the "inapparent parenteral route."

Patients with chronic lesions of the hand should be considered to be at high risk for hepatitis B virus infection and high-priority candidates for inclusion in vaccination programmes. A higher prevalence of infection with non-A non-B hepatitis virus may also occur in these patients since the routes of transmission of B and non-A non-B viral hepatitis are similar.

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(*Accepted 28 September 1981*)

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Prevalence of markers of hepatitis B virus infection in patients with hand eczema or psoriasis and in normal controls

	Mean ± SD time from first appearance of lesions (years)	No	Mean ± SD age (years)	Positive for HBsAg	Positive for one or more markers including HBsAg
Patients with skin lesions:					
<2 years	1·1 ± 0·1	40	29·4 ± 11·5	2 (5·0%)	17 (42·5%)
>2 years	4·9 ± 2·3	41	30·2 ± 10·7	4 (9·8%)	27 (65·9%) } p < 0·005
Controls		256	28·3 ± 11·9	11 (4·3%)	101 (39·5%) }

HBsAg = Hepatitis B surface antigen.