Higher Herpes Zoster Infection Frequency in Right-handed Patients and More Frequent Appearance in the Left Body Side of Females

Sir,

Herpes zoster is a common viral infection of the nervous system. Usually a single, unilateral dermatome is involved. It is not known why involvement is unilateral. The sexes are equally affected. Batteck et al. (1) observed an apparent decrease in the number of left-handed subjects and found that a reduced percentage of left-handed subjects was found in a group of patients with shingles (3.0%), compared with a control group (8.9%). In this study, the effects of sex and handedness on incidence of herpes zoster and on lateralization of lesions were investigated.

MATERIAL AND METHODS

The study was carried out in 24 male and 26 female patients, diagnosed as having herpes zoster, who in 1995 attended the dermatology clinics of the Medical Faculty Hospital of Ataturk University. Four hundred and three healthy subjects were used as controls. The patients ranged in age from 6–75 years, (average 39.03 years). The study was made prospectively.

Hand preference of patients and controls was assessed by the Edinburgh Handedness Inventory (2). Subjects having Gesellwind scores (GSs) lower than or equal to zero were considered to be left-handed and those having GSs greater than zero were considered to be right-handed (3). For statistical evaluation, a proportion test was used in a Microstat packed program, and test (Z) and probability (p) values were assessed. Probability (p) values lower than 0.05 were considered to be meaningful.

RESULTS

There was no significant male-female difference in terms of herpes zoster incidence (Z = 0.14, p > 0.05). Four percent of the 50 patients and 14% of the controls were left-handed. The rate of left-handedness as statistically significantly lower in patients with herpes zoster than in controls (Z = 1.99, p < 0.05). Sixty-two percent of the patients had lesions on the left side of the body, and the difference between the sides was statistically significant (Z = 1.75, p < 0.05). The lesions were on the right side of the body in 51% of the female patients and 54% of the male patients. The difference between right and left sides was statistically significant for women (Z = 4.99, p < 0.001), but not for men (Z = 0.39, p > 0.05).

DISCUSSION

The findings of our study are compatible with those of an earlier report (1). Geschwind & Behan reported a higher frequency of certain auto-immune diseases in left-handed subjects (4). This could be because left-handers might have a more active, and effective, immune system (1). Therefore, it can be speculated that handedness, i.e. cerebral lateralization, is associated with the incidence of herpes zoster infection.

The right-left difference in females as to the localization of herpes zoster lesions may be due to a factor associated with females. Annett (5) hypothesized that there is a right-shift factor, which causes right-handedness in humans. Tan & Kutlu (6) suggested that a female right-shift factor would be responsible for a tendency towards the right-hand and right-paw preferences. Furthermore, Kramer et al. (7) reported that breast cancer occurs more frequently on the left side in females. Sexual differences in handedness, cognitive abilities, developmental disorders, and cerebral asymmetry suggest that intrauterine exposure to gonadal hormones may be important (8), and experimental studies have shown direct effects of testosterone and oestrogen on the central nervous system development (9).

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Transient Acantholytic Dermatosis (Grover's Disease) in a Patient with Gastric Carcinoma

Sir,

Miralles et al. (1) have recently reported a case of transient acantholytic dermatosis (TAD) in a patient with tumour of the thymus, who had developed superior vena cava syndrome. This transitory and benign dermatosis has been recently described in association with some malignancies, mostly from haematologic, renal and genitourinary systems (2), and also with malignant melanoma (2) and multiple basal cell carcinoma (3). In most of these cases TAD occurred either simultaneously or following the diagnosis of neoplasm. In some cases
TAD recurred when the cancer relapsed (2). Febrile episodes, excessive sweating, occlusive immobility and some therapies (ionizing radiation, PUVA, interleukin have been postulated to be predisposing factors for developing TAD in these patients (2), but these conditions cannot always be found (1, 2).

In the past 3 years we have diagnosed 3 histologically proven cases of TAD in our department. One of them was an 80-year-old male who had undergone a partial gastrectomy due to a perforating gastrroduodenal ulcer. Two days before the surgery, he developed an itchy popular rash over the chest, arms and back. A cutaneous biopsy specimen displayed classic epidermal changes of TAD, with a pattern of spongiosis and acantholysis. The histology of the stomach specimen disclosed a peptic ulcer adjacent to an adenocarcinoma infiltrating several nodes. The rash resolved in 2 weeks. No recurrence of TAD or cancer was observed after 1 year of follow-up. To our knowledge, this is the first case reported of TAD in a patient with gastric carcinoma. As in 12% of patients, the onset of TAD coincided in our case with the diagnosis of a previously unsuspected malignancy (2). The lesions appeared 2 days before surgery, so the predisposing factors mentioned above can hardly explain TAD in our patient.

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Lipo-prostaglandin E<sub>1</sub>, Therapy for Livedo Reticularis with Ulceration

Sir,

Livedo reticularis with ulceration (atrophie blanche) is characterized by periodic painful ulcerations, particularly in the summer in association with livedo reticularis of the legs, which leaves ivory-white scars after healing. This disease usually occurs in young adults and middle-aged females. Its etiopathogenesis and optimal therapy have not yet been clearly established. We here report a patient who was successfully treated with lipo-prostaglandin E<sub>1</sub> (Lipo-PGE<sub>1</sub>). Lipo-PGE<sub>1</sub> is a new prostaglandin E<sub>1</sub> (PGE<sub>1</sub>) preparation, encapsulated in lipid microspheres (Palux, Taisho pharmaceutical Co. Ltd., Tokyo, Japan).

A 35-year-old woman was admitted to our hospital with painful ulcerations on her legs in July 1996 (Fig. 1). She had been suffering from livedo reticularis on her extremities and trunk since 1981 and also from painful recurrent ulcerations, which had regularly appeared every summer since 1990. A histological examination of early skin lesions showed a thickening of the endothelial cells in the superficial blood vessels and perivascular infiltrates, without any signs of vasculitis. The laboratory data did not show any specific findings indicative of underlying systemic disease. The clinical picture and the histological findings were both compatible with the diagnosis of livedo reticularis with ulceration. Because her disease became exacerbated, with the development of large painful ulcers, Lipo-PGE<sub>1</sub> infusion was started intravenously at a dose of 10 μg daily for 14 days. Almost immediately after beginning the infusions the pain disappeared and no new ulcer formations appeared. After 14 days the ulcers showed signs of healing, with granulation tissue formation. Lipo-PGE<sub>1</sub> therapy was discontinued and thereafter only local therapy was continued. The treatment proved successful and no relapse was observed, and after 3 months the ulcers were almost healed, leaving typical ivory-white scars. Although the patient was treated with Lipo-PGE<sub>1</sub> for such a brief period, the therapy was able to control the painful ulcers, PGE<sub>1</sub>, which has such pharmacological effects as vasodilatation and inhibition of platelet aggregation, has also been reported to improve the symptoms and signs in livedo reticularis with ulceration (1). An improved stability and efficacy and reduced toxicity of various drugs when incorporated in lipid microspheres have been shown. The good effect of Lipo-PGE<sub>1</sub> may be due to the accumulation of PGE<sub>1</sub> in blood vessels and the decrease of PGE<sub>1</sub> inactivation in the lung thanks to the action of the lipid microspheres (2).

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Fig. 1. Clinical appearance of the patient before start of therapy.

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