UNUSUAL PHENOBARBITONE SENSITIVITY*

S. Bakshi and O.N. Bhakoo

Chandigarh

Phenobarbitone is a frequently prescribed drug. Fortunately the incidence of untoward reactions is very small. The most commonly encountered ones in pediatric practice are drowsiness, overactivity, behaviour disorders and skin rash. We report a near fatal case of an unusual sensitization reaction to phenobarbitone administration consisting of fever, oral ulceration, generalised lymphadenopathy, hepatomegaly and exfoliative dermatitis in an 8-year-old girl.

Report of a Case

B.U., 8 years, F. (C.R. No. 39325), had left sided convulsions when she was 2 years old and a repetition of the same type of fits in June 1970 and once again in July. After this last episode she was put on phenobarbitone gr ½ twice daily which she continued to take till the present illness.

She was admitted to Nehru Hospital, Chandigarh on 6th October, 1970 with an illness of 15 days, starting with fever. Ulceration of the mouth appeared two days after the onset of fever. She was put on pentid-sulpha which she received for one day only. On the fourth day of the fever, she developed diffuse erythema of the face. A diagnosis of measles was entertained at this stage by the family physician and all medication was suspended. This included an inadvertent omission of phenobarbitone as well. As the fever, erythema and oral ulceration persisted she was put on chloramphenicol without much relief. On the 12th day phenobarbitone was introduced once again and this caused a marked aggravation of all the symptoms. A diagnosis of scarlet fever or a phenobarbitone sensitivity reaction was made by the treating physician who omitted phenobarbitone and put the child on erythromycin.

On examination, she looked extremely ill, toxic, was febrile and had puffiness of the face and eyes.

Generalised lymphadenopathy was present. Lymph nodes were discrete, firm and non-tender. There was a universal erythematous rash which later began to scale off and was extremely itchy.

The mouth could be opened with great difficulty. There was angular stomatitis and white necrotic ulcers with a red base on the oral and palatal mucosa. The liver was palpable by 4 cm. and was non-tender on deep palpation. There was no splenic enlargement. There were no conjunctival or genital ulcers. B.P. was 100/70, mm. Hg. and the cardiovascular, respiratory and nervous systems were within normal limits.

A differential diagnosis of infectious mononucleosis and drug rash was made.

*From the Department of Pediatrics, Postgraduate Institute of Medical Education and Research, Chandigarh. l.l.

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Investigations. The haemoglobin was 10 G.%, T.L.C. 13,000 per c. mm. and eosinophils 12%. No abnormal lymphocytes, or immature cells were seen. The platelet count was 380,000/c. mm. The Paul Bunnel test was 1:10 (negative), and oral swabs on the 1st and 4th days were bacteriologically sterile. Blood cultures taken on the 2nd and 6th days were sterile. Urine culture was sterile. Urine did not contain albumin and showed 1-2 pus cells/H.P.F. Serum protein electrophoresis showed a slight decrease of gamma globulin. SGPT (14th day) was 6 units, and skiagrams of the chest and pharynx were normal.

The child had an extremely stormy stay in the hospital. She had focal convulsions on the 10th October. These were controlled with paraldehyde. The rash became generalised, intensely itchy and began to scale off. The oral ulceration became worse with a drooling purulent discharge from the mouth. She also passed whitish mucus like flakes per urethra and with the stool once. The temperature continued to be very high. She was put on betamethasone on the 11th October which was changed to equivalent doses of injectable dexamethasone. No antibiotics were given and she received only Dilantin besides steroids. The general condition showed good recovery and by the 13th hospital day she was only mildly febrile. The oral ulceration took slightly longer to heal. Extensive desquamation of the skin continued for some time. At the time of discharge on 21.10.70, the oral ulceration had healed and desquamation of the skin was over. The liver had regressed to 2 cm. and the lymph nodes had practically disappeared.

Comment

Various types of skin rash are known to develop following phenobarbitone administration. The rash may be generalised morbilliform, scarlatinal, bullous erythema multiforme, fixed drug eruption, urticaria or generalised exfoliative dermatitis. Sneddon and Leishman (1952) reported that 1-3% of patients using phenobarbitone develop a skin rash. They also referred to 14 fatal cases of exfoliative dermatitis following the use of phenobarbitone, since the first reported case in the literature by Chavvary and Vannier (1929).

Bianchine et al. (1968) reviewing the subject of the Stevens-Johnson syndrome, found 7 case reports attributable to phenobarbitone. Fatalities from a phenobarbitone sensitivity syndrome characterized by an erythematous rash, high fever, mental confusion and toxic damage of the parenchymatous organs have been reported by McGreachy and Bloom (1953). Feinblatt and Ferguson (1962) reported and classified forty-four cases of known phenobarbitone idiosyncrasy as neurologic in 23 cases, cutaneous in 15 and bizarre in 6.

Reactions of the nature described—fever, hepatosplenomegaly, lymphadenopathy, exfoliative dermatitis and severe serum sickness like reactions have frequently been reported in the literature with diphenylhydantoin (Bajoghi 1961). Rarely these have been mistaken for infectious mononucleosis or malignant lymphoma of the Hodgkins variety (Siegel and Berkowitz 1961). There are hardly any reports of similar reactions with phenobarbitone. Walton in 1950 reported a near fatal case of a 25-year-old gravid female who showed universal