Letters

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SMON Reported in 1935 in Argentina

To the Editor.—Kimihiro Nakae, PhD, and I reported that subacute myelo-optic neuropathy (SMON) probably occurred in 1938 in Japan (236:919, 1976). Then, when and where did SMON occur first outside Japan?

Recently, two pertinent articles were found that were published in 1935 in Argentina.[1,2] Grawitz[3] administered iodochlorhydroxyquin (Vioform) to 153 patients with amebiasis in a daily dose of 1.5 g for 30 days and described in one case "the development of the sensation of deafness and a paraplegic syndrome similar to transverse myelitis." However, he did not say conclusively that symptoms in this case were side effects of iodochlorhydroxyquin. The general tone of his article stressed the greater efficacy of iodochlorhydroxyquin for amebiasis compared with emetine or chiniofon (Yatren).

Knowing of this report, I investigated whether *Quarterly Cumulative Index Medicus* happened to cover it and discovered a comment by Barros,[4] whose article was so beyond my expectation as to be astonishing. It contained a severe criticism of a vague attitude of Grawitz toward the side effects of iodochlorhydroxyquin, issued a warning that severe neurological disturbances developed after iodochlorhydroxyquin was administered, and stated that he gave information of this to the manufacturer.

According to Barros,[4] neurological signs and symptoms were found in two cases. In one, a 31-year-old British woman who had delivered her first child on June 26, 1934, administration of iodochlorhydroxyquin was started on Aug 20 with a daily dose of 1.5 g. Three days later she had gastralgia, vomiting, and headache, and a little later she "felt as if her legs went dead." After ten days, administration of the drug was withdrawn and symptoms lessened with paresthesia remaining. Seven days later administration was resumed but was stopped soon because vomiting and colic occurred and continued. Then symptoms improved, but the heavy sensation of the legs remained unchanged. After the third administration of iodochlorhydroxyquin was started on Sept 21, colic sharpened, and sensory and motor disturbances of the lower limbs developed. She became worse day by day, so much so she had to drag herself along, had to support herself by leaning against the wall when she walked, and tumbled four times with her baby in her arms. Therefore, iodochlorhydroxyquin administration was withdrawn, but no remarkable improvement was observed. On Sept 28 the fourth administration was started and continued until Oct 3; thus, she took all of the iodochlorhydroxyquin prescribed for her (45 g). Afterward, paralysis of the lower limbs gradually lessened, and ten days later she could walk spastically. When Barros himself examined her in November, he found hypesthesia and exaggerated tendon reflexes in her lower limbs, foot and ankle clonus, absence of abdominal skin reflex, strongly positive Babinski's reflex, and contracture.

Barros[4] reported that when he advised the pharmaceutical company of this case, it thanked him for the information, stating that it would advise physicians not to use the drug in excess of doses indicated in the brochure.

Barros described another case more briefly. A 45-year-old man experienced "similar abnormality of sensitivity with paresthesia and also glucosuria" after taking the drug.

These two cases, reported at the early date of 1935 as iodochlorhydroxyquin intoxication, would be considered today to have been SMON. Igata[1] also noted that in view of the initial abdominal symptoms, they can be said to be exactly typical of SMON.

It is a great surprise for us Japanese, who have had the tragic experiences of many outbreaks of SMON, to know that the iodochlorhydroxyquin intoxication cases were already reported at the time of 1935 and that, moreover, the manufacturer was advised of the fact.

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2. Katahira K: Kabe's view and the possibility of the forecast of the outbreak of SMON (Japanese). *Jap Med J* 2757:91-93, 1977.
3. Grawitz PB: Nuevas orientaciones en la terpéutica de la amebiasis. *Semana Med* 1:525-529, 1935.
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Glucose-Insulin-Potassium Solution and Hypoglycemia

To the Editor.—Glucose-insulin-potassium (GIK) solution was originally introduced as a possible means of preservation of the ischemic myocardium.[1] In this institution GIK solution has been used preoperatively for 12 hours in adult patients undergoing coronary-artery-bypass graft procedures to protect the ischemic myocardium before and during the institution of cardiopulmonary bypass. In recent months we have begun use of the membrane oxygenator and have used crystaloid pump prime (lactated Ringer's solution to albumin in the ratio 1 liter to 25 g) instead of the partial blood prime that had been used with the bubble oxygenator.

When the patient arrived in the operating room, the administration of GIK solution was discontinued. Intravenous fluid administration was continued with 1 liter of 5% dextrose in 0.2 normal saline, followed by lactated Ringer's solution until cardiopulmonary bypass began. We obtained blood glucose levels before starting the bypass and at one-half hour after bypass began. Approximately two thirds of the patients receiving GIK solution became hypoglycemic (blood glucose level under 100 mg/dl), and two patients had blood glucose levels under 60 mg/dl after one half hour with bypass. The hypoglycemia was readily corrected by the addition of dextrose to the pump fluid. Of the patients not receiving GIK solution (for example, patients undergoing valve replacement), none became hypoglycemic under the same intraoperative fluid management and pump prime. None of the patients in either group had evidence of diabetes mellitus.

Edited by John D. Archer, MD, Senior Editor.