

LeQuesne and Hobsley<sup>2</sup> introduced their analysis of the "lag" curve with the statement: "even after gastrectomy the shape of the blood-sugar curve must depend upon the balance between the rate of absorption of glucose from the intestine and the rate of removal from the blood-stream." This is no doubt an oversight, for, irrespective of preceding ingestion of glucose or other nutrients, the following are known to cause the liver to release and load the blood with glucose: (1) Claude Bernard's *piqûre*. (2) Splanchnic stimulation.<sup>9</sup> (3) Stimulation of the adrenal medulla.<sup>10</sup> (4) Adrenaline.<sup>12</sup> (5) "Secondary" shock.<sup>16</sup> In all these cases blood-sugar curves of the "lag" type result. (6) Glucagon, the curve in this case is normal.<sup>13 14</sup> LeQuesne and Hobsley stipulated early inhibition of the absorption into the blood-stream, while in the above case it would be instant. Actually only repeated testing of the sugar content of the vena portae could differentiate non-absorption of sugar from its being held by the liver.

Concerning the interrelation, glucose and intestinal motility: in 150 radiological studies of the effect of hypertonic glucose on motility a number of patients exhibited dumping and "lag" curves (without gastrectomy), but no marked dilution of the meal; contrary to patients in whom glucose caused peristaltic arrest and the "curve" was flat.<sup>15</sup> Some of the pictures in this group were reminiscent of acute gastric dilatation. Dr. Peter Kerley was the radiologist. A first step to verify if the adreno-sympathetic hypothesis is merely possible or also probable might be to repeat the cuffing tests with contemporaneous plasma volume and blood-sugar curves.—I am, etc.,

London, W.1.

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## REFERENCES

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**Contrecoup Fracture of the Sternum**

SIR,—Yesterday another case of "contrecoup" fracture of the sternum presented at my surgery. However, I did not comprehend the mechanism of injury until I read of Dr. James Simpson's case in your issue of May 14 (p. 1505), which arrived in the mail yesterday with its reference to Mr. Miles Fox's memorandum (March 26, p. 935).

On June 13 a tall 14-year-old pre-pubertal boy was riding his bicycle down a steep sandhill when he went over the handlebars, landing on his occiput. His mother kept him at home two days "in case he had concussion" before he returned to school and his morning "paper run" delivery. He was troubled a little by chest pain in the region of and to the right of the sternum only on exertion, especially with his arms, and on laughing. He played in a football match on June 19, during which he was "grabbed" over the sternum. The pain became worse during the match and persisted, but he did not seek medical advice until June 23.

Examination showed tenderness about one inch below the sternal angle, but "springing" the sternum throughout its length caused acute pain. Springing, however, risks damage to structures behind the sternum from bone spicules. He asked me to examine his occiput, but there was no evidence of injury there.

X-ray examination confirmed an isolated fracture of the superior segment of the gladiolus without displacement. It was actually a "greenstick" fracture concave anteriorly. The cartilage between the first and second segments of the gladiolus has not ossified. He is being treated by rest in bed at home.

The mechanism of this fracture was apparently acute antelexion of the cervico-dorsal spine as described in the other two cases, although the evidence in my case is not so convincing. The absence of the typical posterior displacement of the upper fragment in my case may be attributed to his youth. Of interest is the fact that this physically active boy continued his normal routine after fracturing his sternum for 10 days before seeking medical attention. Perhaps this fracture is more common than is generally believed. My patient thought he had fractured ribs, and it would not be difficult for a first-aid or medical attendant to make this error.—I am, etc.,

Bendigo,  
Victoria, Australia.

LLOYD K. MORGAN.

**Needle and Thread**

SIR,—I visited an elderly patient this morning who recently had an ovarian cyst removed. While talking to her, she asked me to have a look at a painful area in her right thigh, which had troubled her for several months. Lately a black spot had appeared and she had mentioned it while in hospital. The house-surgeon had told her it was a filiform wart; the night sister had said it looked like a needle, and that she could have threaded it.

It was treated with a dressing in hospital, which made it smaller and more comfortable. To-day there was a black object projecting about one-eighth of an inch from the skin surface at the lower end of the right femoral triangle. It pulled out easily with forceps and was indeed a household sewing needle one and three-eighths inches long. It had lost its metallic shine and was a dull black. My patient had no idea how the needle had got into her body.—I am, etc.,

Dorchester on Thames,  
Oxford.

A. P. MILLAR.

**C.S.F. Manometry**

SIR,—I believe it is widely taught that, in performing lumbar puncture, the head and neck of the patient, as well as the back, should be flexed; and I think that in practice this is often done quite forcefully. I have noticed that, if the head is released, C.S.F. pressure falls considerably, and I do not now read the pressure until the head has been released. Conversely, it seems to me to be less disconcerting to patients, and less provoking to those who are irritable, to flex the neck rather than grasp it, as is usually done in Queckenstedt's test, to obtain the same information.

I am sure I have not been taught this source of error, nor heard it discussed, and think it may be of practical interest to some of your readers. May I ask those familiar with the phenomenon whether it is physiologically sound to use neck flexion to demonstrate the absence or presence of spinal block?—I am, etc.,

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Transkei, South Africa.

R. F. INGLE.