FRACTURE OF THE HYOID

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Fracture of the hyoid bone is a rare condition. Stimson,[1] in 1910, collected 45 cases from the literature but most of these resulted from judicial and suicidal hanging and were accompanied by fractures of the thyroid and cricoid cartilages. The remainder occurred before the use of X-rays and were not proved. Poppel and Christman[2] state that in the last 20 years there have only been 7 reports in the literature, to which they add a case of their own. Apart from hanging and strangulation, fracture of the hyoid is thus exceedingly uncommon. The following case was sustained in a motor-car accident.

CASE REPORT

In February 1957, D.P., a Coloured woman aged 55, was a passenger in a car which fell into a ditch. She was sitting in the rear and knocked her chin forcibly against the back of the front seat, and was then dazed. She was brought to Baragwanath Hospital 2 hours later, complaining of pain in the neck. On examination

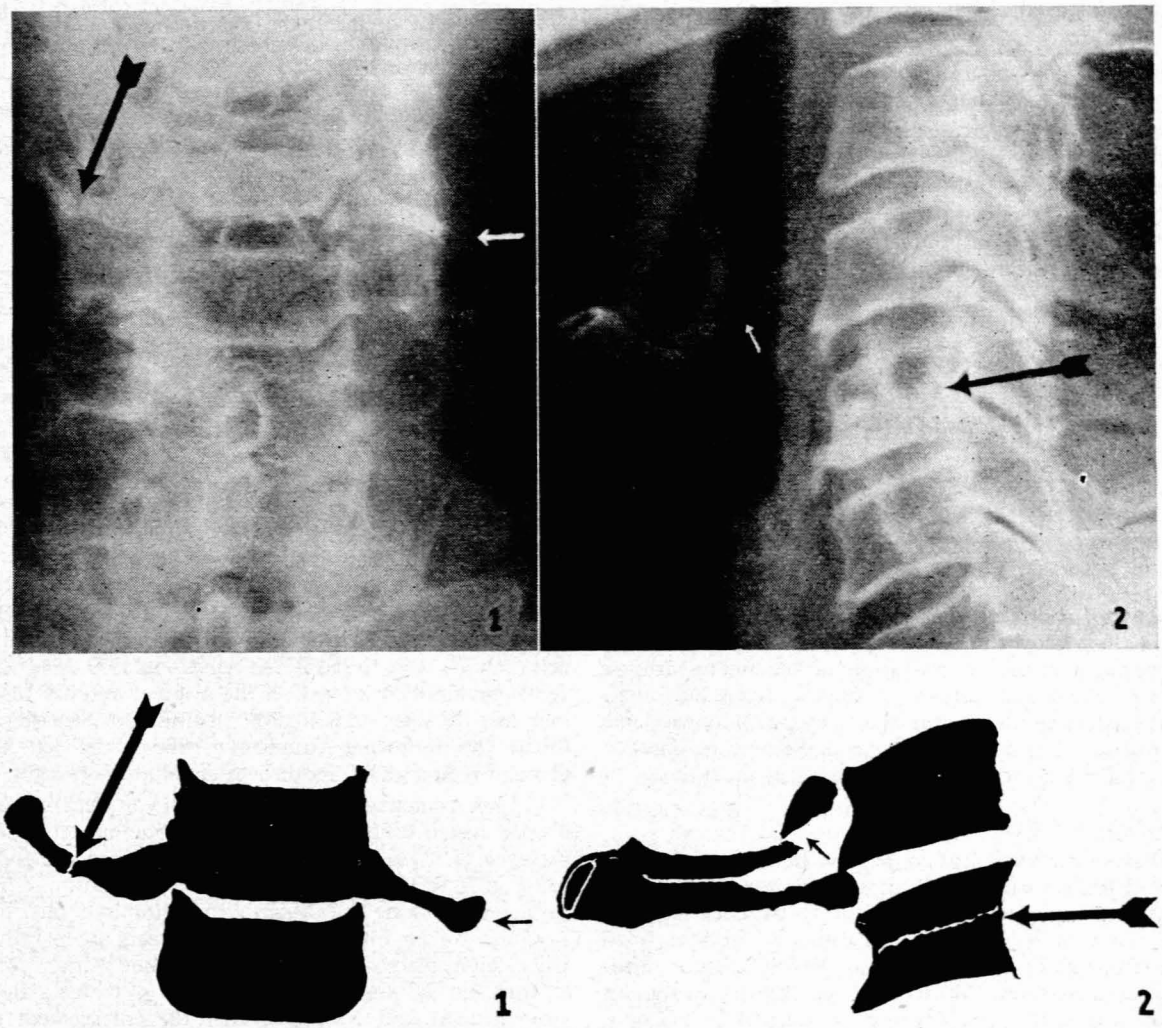

Fig. 1.

Above: Antero-posterior radiograph of the neck. The large arrow points to the fracture through the right greater cornu of the hyoid. The lateral fragment is displaced upwards. The small arrow points to the normal left greater cornu.

Below: Drawing from the radiograph.

Fig. 2.

Above: Lateral radiograph of neck. The large arrow points to the fracture of the body of C4 and the small arrow to the fracture of the right greater cornu of the hyoid.

Below: Drawing from the radiograph.

her neck was stiffly held in a neutral position and could be moved only passively and then but slightly. A small abrasion was present on her chin and she was tender over the anterior and posterior aspects of the upper parts of the cervical spine. X-ray of her neck (Figs. 1 and 2) showed a fracture of the body of the 4th cervical vertebra, and a fracture of the hyoid bone through the right greater cornu.

The patient was given only symptomatic treatment and was not seen again until August 1957. She said that her symptoms cleared up completely after about a month and X-ray now showed normal appearances.

DISCUSSION

There are 3 well-established causes for fracture of the hyoid:

1. Direct injury, as in strangulation, run-over accidents, or a direct blow on the side of the neck.

2. Indirect violence, as in hyperflexion and extension of the neck, as in a fall. Our case would probably fall under this heading.

3. Muscular violence, as in forcible swallowing.

The age of the patient is important because the joints between the body and greater horns of the hyoid disappear by ossification after middle age and this renders the bone more liable to fracture from strangulation.

On X-ray it is important not to mistake the joints between the body and greater horns, for fractures and loss of alignment are the significant finding. The stylo-hyoid ligament ossifies only rarely and is then called the epihyal bone. When the latter is small and is present near the hyoid it may be confused as a fragment from a fractured hyoid. However, normally it is well defined, with a cortical margin.

The commonest symptoms are pain in the neck and throat made worse by talking and swallowing, and dysphagia, especially with solid food.[3]

Complications. Non-union occurs but does no harm.[4] Da Costa[5] states that the fracture should unite in 4 weeks and that change of voice and hoarseness is usually temporary.

Prognosis is good unless a bony fragment perforates the larynx, when there is a danger of oedema glottidis or suffocation from bleeding into the trachea.

Treatment is completely conservative for all cases except where the larynx has been perforated by a bony fragment. The voice should be kept at rest for 1 week and the patient given a liquid diet until he can take solids.

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