

to my surprise, I found that nearly the entire anterior arch of the atlas had come away.

A few days later the patient told me that he hawked up a small piece of bone, shaped like a finger nail, smooth on the one side and rough on the other. This was doubtless the articular facet from the anterior face of the pin of the axis. This scale of bone was, unfortunately, not preserved.

The illustrations show the front and back views of the piece of the atlas exfoliated and are about one-half larger than the original.

*Course.*—After the sloughing off of the piece of bone, the ulcer quickly healed, and the patient, in a few weeks, was able to do light work. For some months afterward, a sharp pain warned him not to move the head too far backward, and the motion of rotation was limited about one-half.

A marked depression existed in the throat at the site of the injury, and the finger there could not detect any motion whatever between the atlas and axis.

The extent of rotation has increased somewhat during the past years, probably from increased mobility of the cervical spine, and, except for the slight stiffness of the neck, the patient shows no symptoms of his former trouble.

*Other Cases.*—I find recorded in the literature some eighty cases of caries and necrosis of the atlas or axis, the vast proportion being evidently tubercular. With but few exceptions, they ended fatally, and nearly all of those who survived were paralyzed in greater or less degree. I was able to find only five cases<sup>1</sup> of syphilitic exfoliation of parts of these bones, one reported from Germany, three from Great Britain, and one from this country. All recovered. Doubtless a good many other cases of this kind have occurred, which have not been reported, for this is a common place for a pharyngeal ulcer, and deep ulcers from syphilis are extremely frequent.

In the other five cases found, as well as in my own, there were no signs of inflammatory trouble of the medulla, despite the nearness of the disease to this vital point.

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## ABDOMINAL PAIN AND PNEUMONIA.

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In connection with the instructive paper by Dr. Herrick in *THE JOURNAL* of the American Medical Association on "Abdominal Pain in Pleurisy and Pneumonia," I report the following case:

The patient, a native female, single, aged 20, of previous good health, suddenly was seized about 10 a. m. with a violent chill, followed by very severe pain in the umbilical region. This lasted for about an hour. About 5 p. m. the pain returned, and she had a sensation of "burning up," as she expressed it. I saw the patient for the first time about 9 p. m. The abdominal pain seemed to radiate downward and laterally from the umbilicus, but did not extend above that point. It was of a dull, aching character, although the first paroxysm had been of a sharp, stabbing nature. No evidence of tenderness was found, and there was no rigidity or tympany. Bowel movements had been natural. The temperature was 100, pulse 80, full and strong. Examination of the chest was negative, except that there was hurried breathing and a few coarse râles. Heart was normal.

The next morning, after a sleepless night due to the abdominal pain, which was but partially relieved by morphin, gr.  $\frac{1}{4}$ , the patient had a violent paroxysm of coughing without expectoration, which lasted about half an hour. When I saw her a little later, there was some cessation of pain, the temperature was 100, pulse 92, with no more physical signs of chest disease than on the previous evening. I decided the condition was one of acute bronchitis, but could not account for the abdominal pain. That evening the condition was

precisely as in the morning, except that pain was less (no more morphin given) and a slight, dry cough had developed. Patient slept well that night. On the morning of the third day the pain had ceased entirely, the cough was slight, but now was accompanied with mucopurulent expectoration. On auscultation, numerous fine crepitant râles were heard, but the breath sounds, while increased in number, were otherwise normal. Temperature 100, pulse 90, respiration 22. Patient felt much better, but toward evening the abdominal pain returned in greater intensity after a slight but natural movement of the bowels, and vomiting set in, again directing my attention to the abdomen. There was, however, no evidence of abdominal disease. There were no additional signs in the chest, although the cough and mucopurulent expectoration had greatly increased. Patient passed a good night, due probably to a  $\frac{1}{4}$  gr. of morphin, necessitated by the severity of pain.

The next morning (fourth day of illness) pain and vomiting had ceased, and physical examination gave all the signs of an acute lobar pneumonia, involving the upper lobe of the right lung, and for the first time the patient complained of pain and constriction in the chest and dyspnea, and curiously enough the pain was wholly on the left side, which remained normal. Temperature was now 102, pulse 90, full and strong, respiration 28.

The patient then ran a typical course of pneumonia, the temperature falling by crisis on the twelfth day after the original onset of illness. On the second day of the pneumonic process, the abdominal pain returned, and continued in a slight degree during the entire course of the disease, subsiding entirely at the crisis, never to recur. There were no other abdominal symptoms nor any abdominal signs.

Convalescence was rapid and perfect. However, four weeks after I had discharged the patient as cured, edema and pain of the extremities suddenly developed, and death resulted in eighteen days from acute beri beri, which is so common among the native population. The attack of beri beri evidently bore no relation to the pneumonia for three weeks after discharge the patient was well and strong as ever and enjoying perfect health.

## New Instrument.

### A NEEDLE TO CARRY THE MCGRAW ELASTIC LIGATURE.

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DETROIT.

The accompanying illustrations show a needle which I have devised to carry the McGraw elastic ligature. The needle is one solid piece of steel, with a slot in the end, into which the ligature is placed after being put on the stretch.

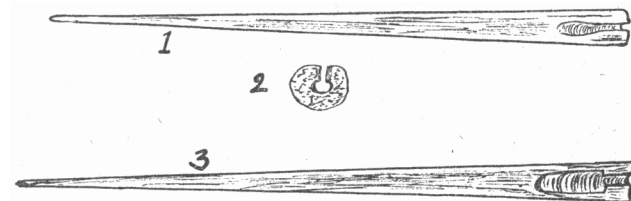


Fig. 1.—1, Needle to carry elastic ligature; 2, end view; 3, sectional view.

When relaxed the end of the ligature which lies in the groove expands sufficiently to hold it in place when being drawn into the stomach or intestinal wall. A large ligature can be used with a small needle by clipping a small piece from the side of the ligature near the end.

**Alcohol.**—Valentino has shown in the *Revue de Méd.* that the toxic effects of alcohol are due in part to its dehydrating power, as previously asserted by Dubois; the staggering gait to the toxic power of alcohol proper and the coma to the absorption of water from the nerve tissues.

1. *Deutsche Zeitschrift für Chir.*, July, 1885; *Lond. Med. Gazette*, April 4, 1885; *Philadelphia Med. Times*, Oct. 19, 1872; *Dublin Jour. Med. Sci.*, February, 1877; *Medico-Chir. Trans.*, London, Feb. 13, 1849.