REMOVAL OF BULLET FROM THE THIRD VENTRICLE

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Reports of movable foreign bodies in the ventricles are not numerous, and only one instance was found of the removal of a foreign body from the 3rd ventricle.4 The clinical picture of intraventricular foreign bodies usually consists of repeated attacks of severe meningeal irritation or meningitis, ending in death if the offending object is not removed or, rarely, in recovery if the migration stops—the fragment becoming encysted somewhere in the wall of the ventricle.

Cushing2 reported 30 cases of penetrating wounds of the ventricles with 8 recoveries; 16 of these were bullet wounds and all patients died. Regard6 extracted a bullet from the lateral ventricle after it was made to drop posteriorly into the occipital horn. Small8 reported a migratory bullet in the lateral ventricle which eventually came to rest in the substance of the occipital lobe and was not removed because there were no symptoms. Campbell, Howard, and Weary4 reported a migratory buckshot in the lateral ventricle removed from the occipital region after a severe attack of meningeal irritation. Dandy4 mentioned the removal of one bullet attached by a pedicle to the wall of the lateral ventricle and another freely movable which was removed through a ventriculoscope. Furlow, Bender, and Teuber1 reported the removal from the 3rd ventricle of a large piece of shrapnel which had lodged there after migrating from the occipital region, presumably from the right posterior horn of the lateral ventricle. This is the only previously recorded case of a foreign body removed from the 3rd ventricle. It is similar in several features to the one which I shall present, particularly in regard to character change and rapid weight increase.

The following case report describes the removal of a bullet from the 3rd ventricle by an approach through the lamina terminalis, followed by complete recovery.

CASE REPORT

R.G.S., a 19-year-old boy, was admitted to the Methodist Hospital on Nov. 27, 1948, in a semiconscious state. On the day before he had received a bullet wound from a .32 caliber rifle fired at a distance of 75 to 100 yards, which entered his forehead just to the right of the midline. He was totally unconscious for about an hour, but then became semiconscious and able to talk, as well as recognize members of his family, although he was disoriented for time and place.

Examination. The vital signs were normal except for slight elevation in temperature. The right pupil was sluggish to light, and there was a partial right external strabismus. There was definite deviation of the tongue to the left, and weakness of the left arm and face, with almost complete paralysis of the left leg, but no significant reflex alteration except for bilateral Babinski sign and absent left cremasteric. X-rays showed the point of entrance barely to the right of the midline in the frontal region, a track of fragments, and the bullet near the midline on the right side, a little below the midpoint of the corpus callosum.

1st Operation. On Nov. 28, 1948 the wound was debrided through a small frontal opening. The dura was under considerable tension and a large clot was evacuated under it. The track of the bullet could be explored for a distance of 3 to 4 cm. before it was lost.

Course. He improved satisfactorily, became afebrile on the 7th day, and was able to use the left side of his body quite well. Diplopia persisted. Films taken on the 7th day showed a cylindrical metal object in the midline, measuring 1 × ½ cm., slightly lower than in previous pictures (Figs. 1 and 2).

![Figs. 1 and 2. Anteroposterior and lateral views in usual positions. Bullet suspected of being in 3rd ventricle.](image)

At this time he began to complain bitterly of pain in the neck, and there was considerable rigidity. X-rays showed a normal cervical spine. He began to run a septic temperature. On December 9, lateral x-rays taken in the brow-up and brow-down positions showed a midline movable bullet definitely in the 3rd ventricle, the position with the brow down being just above the optic chiasm, and with the brow up in the posterior recess or beginning of the aqueduct (Figs. 3, 4 and 5).

2nd Operation. On Dec. 14, 1948, 17 days after admission, he was taken to surgery again. The head was first placed in the brow-down position and then returned to a lateral position