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Unusual Foreign Body In Maxillary Sinus

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ABSTRACT

Abstract (English)

Presence of foreign body in maxillary sinus is not a rare finding. Various instances have been reported earlier citing cases of tooth, dental amalgam, pellets etc. in the maxillary sinus. However the presence of a bullet is a rare case in which the patient survived. This paper reports this unique case.

Abstract (Italian, Italiano)

La presenza dell' ente straniero in seno maxillary non è un' individuazione rara. I casi vari sono stati segnalati più presto che citano le casse del dente, dell' amalgama dentale, delle palline ecc. nel seno maxillary. Tuttavia la presenza d'una pallottola è un caso raro in cui il paziente è sopravvissuto. Questa carta segnala questo caso unico.

Abstract (German, Deutsch)

Vorhandensein des fremden Körpers in der maxillary Kurve ist nicht ein seltenes Finden. Die verschiedenen Fälle sind Kästen des Zahnes, des zahnmedizinischen Amalgams, der Tabletten etc. früh zitierend in der maxillary Kurve berichtet worden. Jedoch ist das Vorhandensein einer Gewehrkugel ein seltener Fall, in dem der Patient überlebte. Dieses Papier berichtet über diesen eindeutigen Fall.

Click here to go to full German translation.

Abstract (French)

La présence du corps étranger dans le sinus maxillaire n'est pas une conclusion rare. De divers exemples ont été enregistrés citant précédemment des caisses de dent, d'amalgame dentaire, de granules etc. dans le sinus maxillaire. Cependant la présence d'une balle est un cas rare dans lequel le patient a survécu. Cet article enregistre ce seul cas.

Abstract (Portuguese, Português)

A presença do corpo extrangeiro no sinus maxillary não é encontrar raro. Os vários exemplos foram relatados que citing mais cedo caixas do dente, de amálgama dental, de pelotas etc. no sinus maxillary. Entretanto a presença de uma bala é um caso raro em que o paciente sobreviveu. Este papel relata este caso original.

Abstract (Spanish, Español)

La presencia del cuerpo no nativo en sino maxillary no es el encontrar raro. Los varios casos han estado señalados que citaban anterior cajas del diente, de la amalgama dental, de las pelotillas etc. en el sino maxillary. Sin embargo la presencia de un punto negro es un caso raro en el cual el paciente sobrevivió. Este papel señala este caso único.

Keywords: Maxillary sinus, Bullet, Foreign body, firearm injury

CLINICAL DESCRIPTION



Figure 1: X-ray of the maxillary sinus, showing the bullet

A 20 year old man reported to the ENT OPD of Lok Nayak Jai Prakash (LNJP) Hospital, Delhi after being referred from Guru Nanak Eye Center (GNEC), Delhi for removal of a bullet impacted in his left maxillary antrum. There was an old land dispute as a result of which an altercation took place, and the patient was hit by his adversary from a distance of around four meteres. This was labeled as a Medico legal case, and was referred to the GNEC. At GNEC, it was decided to deal with his lid laceration/medial canthus injury after the removal of the bullet.

On examination the patient had enopthalmos with a mark of injury on his medial canthus. There were no signs of burning, blackening or tattooing, thus corroborating the patient's story that his

adversary hit him from a distance of four meters. His vitals were normal and his palate was intact. His lab reports revealed the following:

Hb:13g%, TLC:8200/cc, DLC:P70,L26, E4, and Blood Urea:24mg%

X-ray Paranasal Sinus revealed a radio-opaque shadow resembling a bullet abutting the medial wall of left maxillary sinus. All other walls of the antrum were intact.

The patient underwent Caldwell Operation through a sublabial incision. On exploring the antrum it was found to be filled with granulations. The bullet was removed carefully, the wound stitched and postoperatively antibiotics, analgesics and antiseptic mouth wash given.

After being discharged this case was taken up by Ophthalmologist's at GNEC who performed his lid repair and ectropion release.



Figure 2: Another view of the maxillary sinus, showing the bullet

DISCUSSION

Maxillary sinus is the largest of the paranasal sinuses and occupies the body of Maxilla. It is pyramidal in shape with base towards lateral wall of nose and apex directed laterally into the zygomatic process. It's roof is formed by the floor of the orbit and grooved by infraorbital nerve. The bullet fired from a distance of about four meteres entered the maxillary antrum through the medial canthus.

Thereafter it was found to be abutting the medial wall of maxillary sinus without causing damage to the structures medial to it i.e. middle and inferior meatus. While taking out the bullet, particular attention was being paid to the manner in which it was removed. The prongs of the forceps was

covered with rubber tubes and thereafter it was pulled out. This is important because herein lies the legal responsibility of the surgeon.

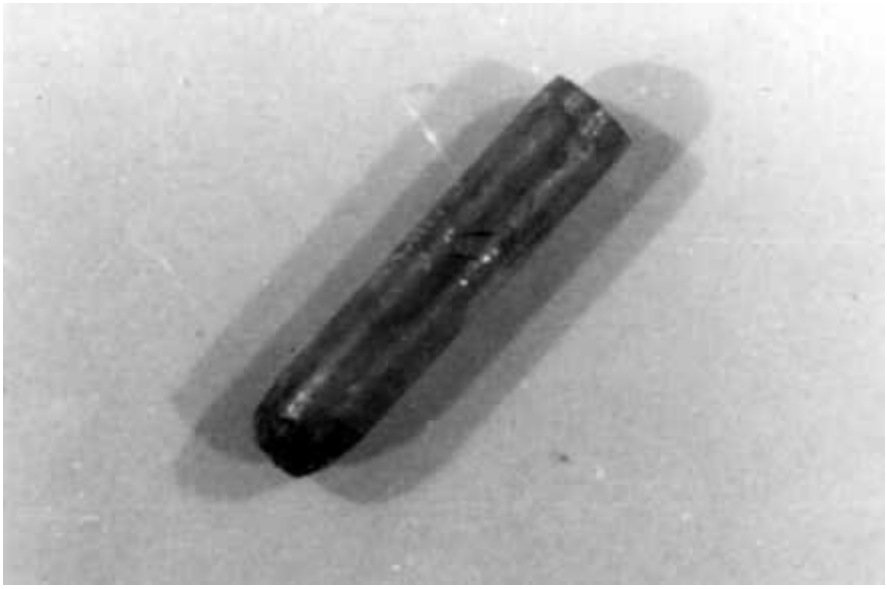

Figure 3: The bullet after surgical removal

Each fired bullet has fine markings on it's surface which is it's characteristic feature, just like the finger prints of a person. Studying these markings would enable a ballistic expert to make comparisons with the bullets fired from the suspect weapon, hence the necessity that these markings are not being tampered with.

CONCLUSION

This is a case report of abnormal tract of a bullet, which ultimately lodged in an unusual site. It has been stressed that rubber sheaths must be put on forceps while removing the bullet to maintain it's individuality. This fact is not widely known by ENT/EYE surgeons.