

# Surgical anatomy of Crista fenestra of round window corridor in relation to cochlear implantation: Our experience in 140 cases

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## Abstract

**Objective:** This study is to describe surgical morphological types of the crista fenestra (CF) in relation to round window membrane (RWM) and to determine its impact on cochlear implant (CI) via the RW insertion. **Materials and Methods:** A series of 140 cases of CI which were performed in tertiary referral centers for CI with intra-operative video recording. Two senior CI surgeons reviewed these recordings for detection of morphological classification. **Results:** 125 cases (89.28%) showed the type (A) CF, which sub-classified to: Type A-1 in 93 cases (66.42%), type A-2 in 26 cases (18.57%) and type A-3 in 6 cases (4.28%) Type (B) CF was detected in 15 cases, which sub-classified to: Type B-1 in 11 cases (7.85%) and type B-2 in 4 cases (2.85%). **Conclusion:** In spite of large morphological diversity, Crist Fenestra can be classified into two main types. Most of them were no need for its removal whereas in a minority of the cases it hinders electrode insertion and needs drilling. **KEYWORDS:** Cochlear implant, round window membrane, Crista fenestra, drilling.

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