

KNOWLEDGE AND AWARENESS OF OSTEORADIONECCROSIS AMONG DENTAL STUDENTS - A SURVEY

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ABSTRACT

Background- Osteoradionecrosis (ORN) is considered by a non-healing extent of unprotected mandible of minimum 6 months extent in an enduring who has been frozen with radioactivity healing for tumour. ORN is one of the greatest solemn difficulties ascending from cranium and neck radioactivity remedy. ORN is connected with pain and disease and, in unconventional periods, classically necessitates operating resection and renovation for management.

Aim & Objective- To assess the knowledge, attitude and practice regarding osteoradionecrosis among dental students

Methodology -A cross sectional survey was carried among 100 dental students pursuing internship in five dental colleges in chennai. A self-assessed questionnaire with 10 questions where filled up by the respondents. The obtained data was further processed and analysed.

Result -This study concluded that only 54% of the students are aware of osteoradionecrosis. Majority of the students say that absorbed radiation dose, delivery modality and dental status are the predisposing factor of osteoradionecrosis .69% of student know that the common site of osteoradionecrosis is mandible.67% know that it can be reduced.42% of the students know surgical debridement, antibiotics and hyperbaric oxygen therapy are the preventive measure of osteoradionecrosis .Hence vigorous awareness programs to be initiated among dental students to address this concern.

Conclusion-With our pilot study we suggest programs to improve the awareness about osteoradionecrosis. Further research work with more number of dental student's population is recommended.

MATERIALS AND METHOD:

This questionnaire based study was conducted for a period of one month (December2016). Questions on osteoradionecrosis was asked to 100 dental students pursuing interns about the method and their use. The questionnaire consists of 10 questions and were given in five dental colleges in chennai .The questions in the questionnaire are as follows,

- 1) Have you ever heard of osteoradionecrosis?
 - a) Yes b) no c) not sure
- 2) Do you know the risk radiation dose of osteoradionecrosis?
 - a) Above 6000cgy
 - b) Below 6000cgy
 - c) Don't know
- 3) Are you aware that dental extractions increase the risk of osteoradionecrosis?
 - a) Yes b) no c) not sure
- 4) What are the predisposing factors of osteoradionecrosis?
 - a) Absorbed radiation dose
 - b) Delivery modality
 - c) Dental status
 - d) All the above
 - e) Don't know
- 5) Do you know the preventive measure for ORN?
 - a) Yes b) no c) not sure
- 6) What are the preventive measures for ORN?
 - a) Surgical debridement
 - b) Antibiotics
 - c) Hyperbaric oxygen therapy (HBO therapy)
 - d) All the above
 - e) Don't know
- 7) Does ORN has an impression on superiority of lifespan and cost of repair?

a) Yes b) no c) not sure

8) What is the most common site of ORN?

a) Maxilla

b) Mandible

c) Skull

9) Are you aware that ORN is one of the utmost thoughtful difficulties ascending from cranium and neck radioactivity remedy

a) Yes b) no c) not sure

10) Can ORN be reduced?

a) Yes b) no c) not sure

The obtained data was further processed and analysed

RESULTS:

Among 100 dental students, 54 students heard of osteoradionecrosis

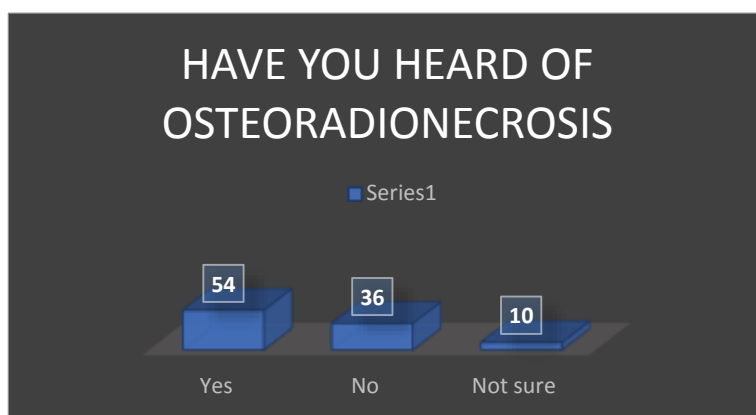


Figure 1: Number of students heard of osteoradionecrosis

76% of students are aware that Mandible is common site of osteoradionecrosis

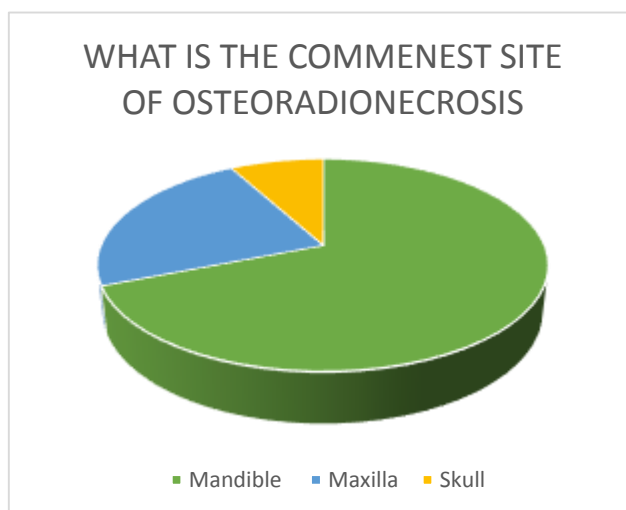


Figure 2: Commonest site of osteoradionecrosis

42% of students are aware about the preventive measures ORN

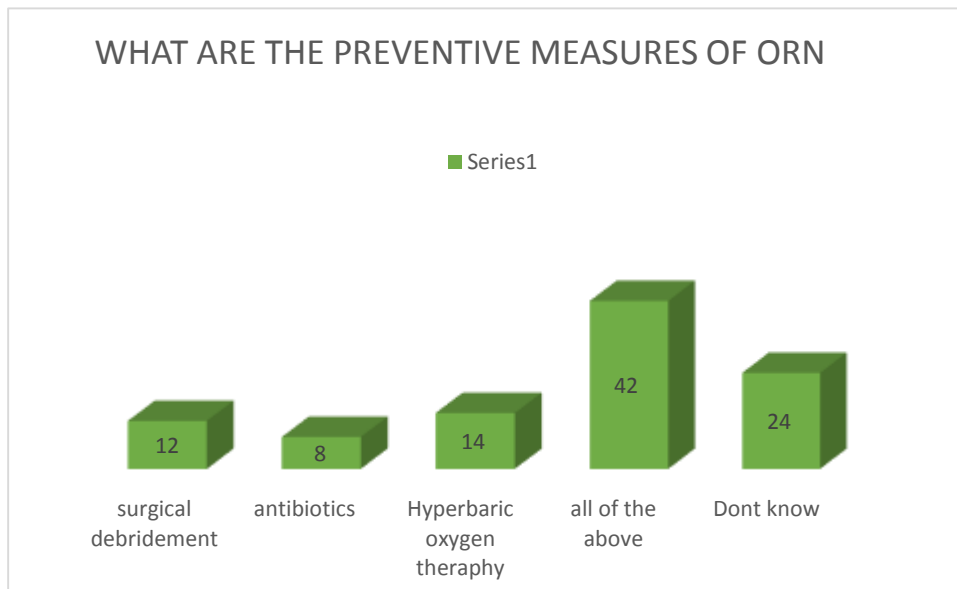


Figure 3: Preventive measures of ORN

Majority of dental students are aware whether osteoradionecrosis can be reduced or not

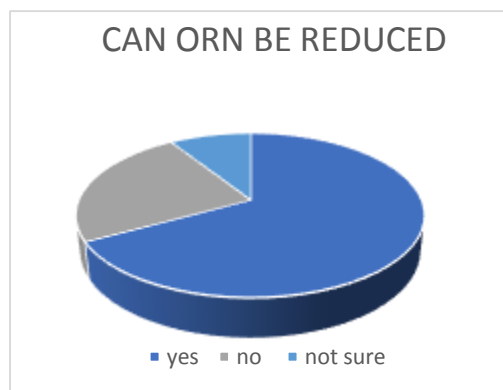


Figure 4: Reduction of ORN

46% of dental students are aware about the risk radiation dose of osteoradionecrosis

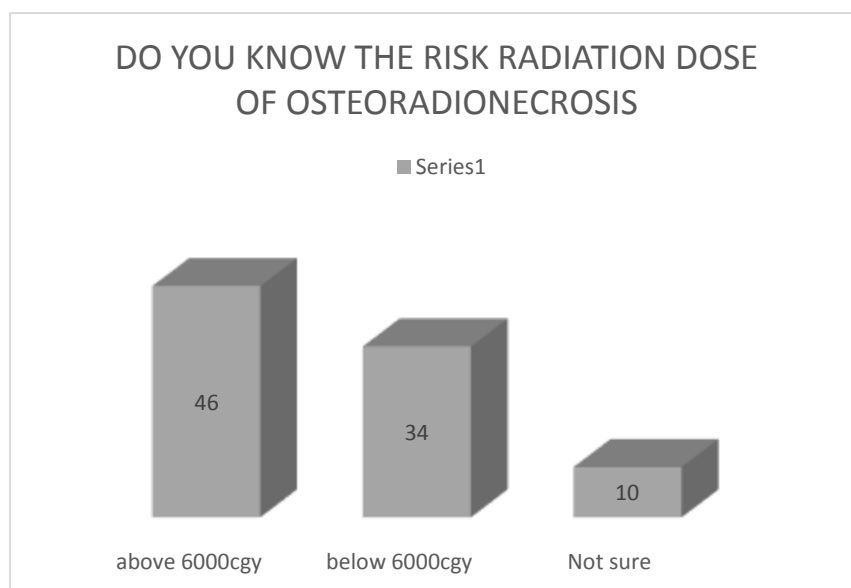


Figure 5: Risk radiation dose of osteoradionecrosis

Majority of dental students are aware that absorbed radiation dose, delivery modality, dental states and dental status are predisposing factors

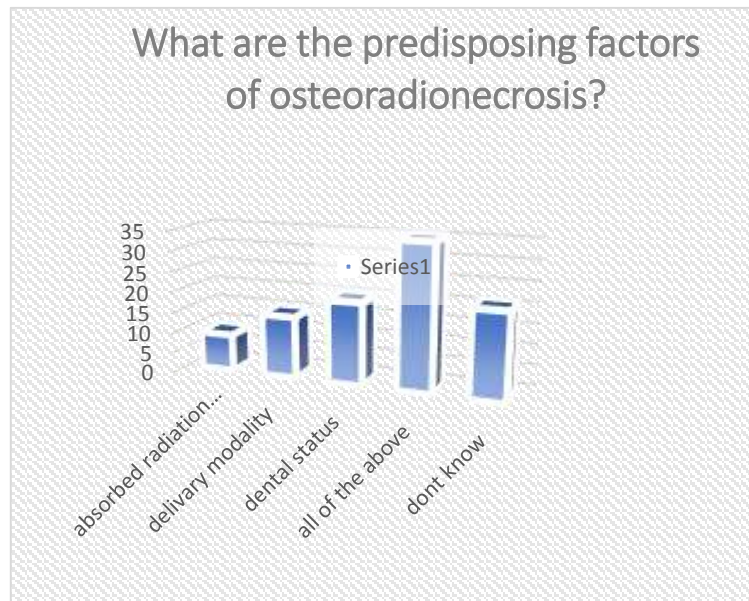


Figure 6: Predisposing factors of osteoradionecrosis

More than half of the dental students were sure whether ORN had an impression on superiority of lifespan and cost of maintenance

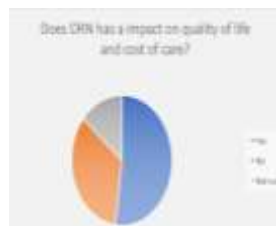


Figure 7: Impression of ORN on superiority of lifespan and cost of maintenance

60% of dental students were aware that ORN is one of the greatest thoughtful difficulties ascending from cranium and neck radioactivity remedy



Figure 8: Awareness of ORN is one of the greatest thoughtful problems ascending from cranium and neckline radioactivity remedy

Discussion:

Mandible is the common site for osteoradionecrosis and 72% of dental students are aware. These findings are consistent with the other studies reporting osteoradionecrosis is common in mandible.(3,5)

42% of dental students are aware of preventive measures. These findings are consistent with other studies reporting preventive measures such as clinical debridement with adjunctive rehabilitations such as antibiotics and hyperbaric oxygen (HBO) treatment (5)

Douglas E. Peterson studied about osteoradionecrosis and found that ORN may be condensed finished primary intraoral appraisal, conduct, and acceptable therapeutic time erstwhile to commencement radioactivity remedy(5). In this study, 67% of dental practitioners are aware that ORN can be reduced.

Other studies reveals that Risk of ORN surges with radioactivity quantities above 6,000 cGy, aforementioned cancer resection, progressive dental sickness position, and post radioactivity dental withdrawals [1, 2]. Only 46% of dental students were aware of risk radiation dose of osteoradionecrosis.

Prompting influences contain fascinated radioactivity dosage, fractionation, conveyance modality, and dental position (6).50% of dental students were aware of predisposing factors of osteoradionecrosis.(7)(8)

To encompass on the 1989 NIH Expansion Harmony Discussion on the Oral Difficulties of Cancer Rehabilitations [6], ORN has an impression of existence and cost of living .In this study, More than half (76%) of the dental students were sure whether ORN had an impact on quality of life and cost of care.

Majority of dental students (70%) were aware that ORN is one of the maximum thoughtful difficulties ascending from cranium and neckline radioactivity remedy.(9)(10)

Conclusion: This study shows there is inadequate knowledge and awareness of osteoradionecrosis among dental students .Hence vigorous awareness programs to be initiated among dental students to address this concern.

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