

Computer guided stitchless surgery for dental implant

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IP Singh | Jalandhar

The 'impact' of simulation is not just for thrilling games but latest advancement in the field of dental implants has made it possible that it can be used to plan the teeth replacement with implants in the jaw. The new technique called Computer Aided / Computer Guided Implant Placement. (CAD/CAM Solution) is the talk of the town now. The CAD software helps the dentist to carry out a virtual surgery on the patient's simulated jaw on the computer and the CAM helps to create a surgical template to perform the surgery in the patient's mouth as per planning on the software.

The first such stitch less computer guided/computer aided implant placement in Jalandhar was carried out on a 57-year-old UK based NRI by Dr A S Cheema and Dr Raymandeep Cheema to replace all 32 teeth in the fully edentulous jaw.

"The fixed restoration was inserted in minimum of one hour of the surgery and he was allowed to bite on food immediately," said Dr Cheema.

Conventionally, the implants are placed in the jaw bone in patient's mouth involving a minor surgery, a healing time of 7-10 days followed by suture removal. Then the patient has to wait for 3 to 4 months so that the implant integrates with the jaw bone. This is followed by restoration. "But with this latest technique the implantologist can virtually analyse and plan a surgery before actually performing it in the patient's mouth," he said adding that a CT scan of this patient was taken and virtual planning of case was done. His surgical template was specially fabricated from Sweden through computerised machines to achieve high level of accuracy and precision.

Enumerating the advantages, Dr



DENTAL DELIGHT

Cheema informed that the guided surgery planned on the computer was more precise in placement of implants as it provided better visualization of important anatomic structures. "The future prosthesis (temporary/permanent bridge) is simulated in the mouth with the help of surgical template in advance and it is time saving as the patient receives the implant and the prosthesis on the same day and can returned to active social life," he said. As surgery does not involve any incision or suturing so there is no bleeding, healing is faster with minimum discomfort and minimal risk of infection and early ambulation. Due to these features it

Because of lack of awareness about importance of oral hygiene and need for regular dental check ups, many start losing teeth as early as 35 years in urban population and even at 20 years in rural population. So, by 55-60 years, 15 to 20% of the population is edentulous. Since the average life span of Indians has increased by 10 years, so is the need for fixed and permanent solution for missing teeth.

can be done on high risk patients like those with coronary artery disease, diabetes mellitus, hypertension, patients on drugs like antiplatelets, anticoagulants, advanced age.