# ANKYLOS IMPLANTS AND IMPLANTING DIRECT AFTER TOOTH EXTRACTION

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#### Introduction

Immediatly putting of implants in recently postextraction sockets is an object of interest on the part of implantologists. Main problem, which stay at implantologist, this is initialy stability of implants and his fully reconstruction of bone's fault volume around the implant. The process of osteointegration in bone augmentation's area on this stage is not definitely established. In this case essentialy meaning are the kinds of using implants, bone graft's materials and method of application.

### Aims and purposes

Aims of this clinical research are to define chance for applying into Ankylos implants in big, freshly postextraction socket's bone defects.

Purposes which we lay down to us are:

1) Characterizing the type and volume of bone defects before/after the implantation and the etiological factors; 2) Characterizing the volume of bone fault; 3) CT bone density; 4) Choosing the objective implant size; 5) Characterizing the implant's stability.

#### **Materials and Methods**

Ø 4.5 mm

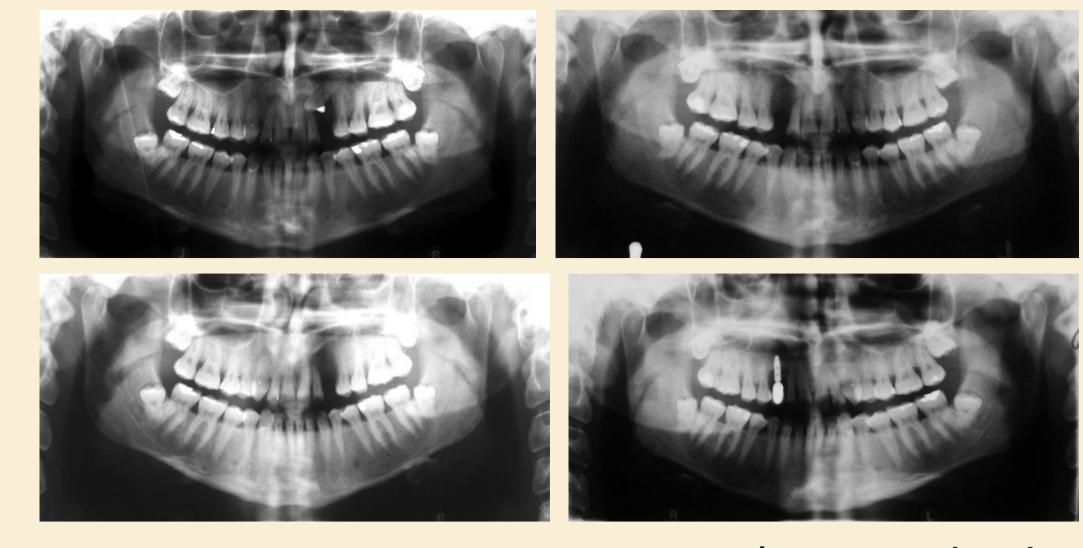
In this research have been included 21 patients (12 men, 9 women) on the age of 30 to 60 years, on who were put in total 31 implants (fig. 1, 2). The period of this research has been 8 months. The wide defects were grafted with OsteoBiol's xenografts (fig. 3). With CT we registered the volume, size and type at initial bone defect and after 8 months as well as the CT bone density (fig. 4), was found the correct implant size and type of adjacent bone by Lekholm-Zarb. The initial and check implant's stability was measured with method of Radio Frequency Analysis (R.F.A.) (fig. 5).

A8 A9.5 A11 A14 A17

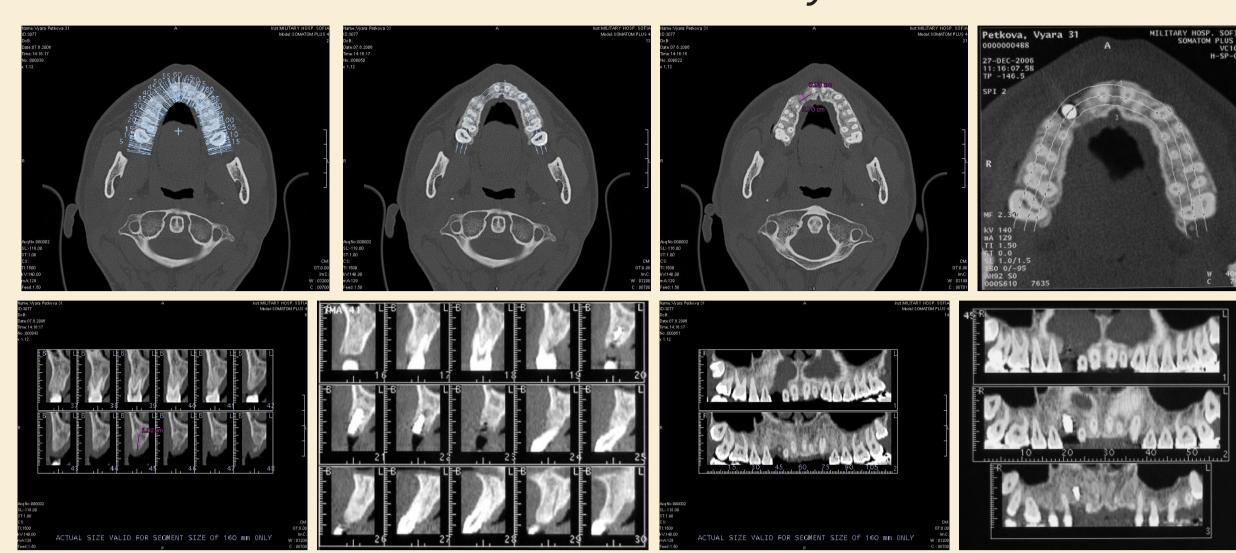
B8 B9.5 B11 B14 B17

C8 C9.5 C11 C14 C17

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Orto X-Rays and CT Examination



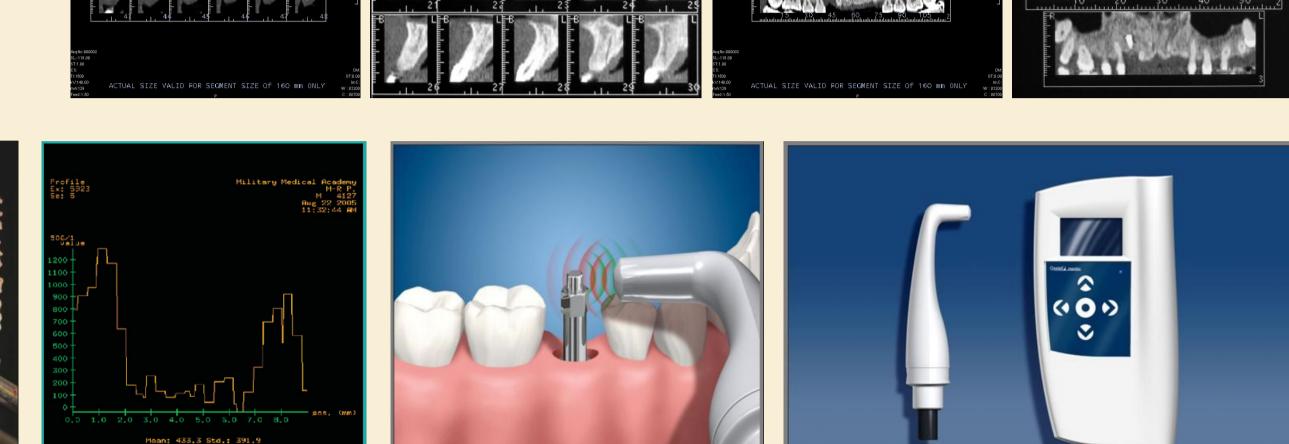


Fig. 3 Fig. 5 Fig. 2 Fig. 4

Fig. 1

## Results and discussion

All the implants were in optimal function. 100% filling of the defect was found by 90.3% of the patients. By 9.7% - more than a half. The upper jaw defects have the average volume of 587 mm<sup>3</sup> and these by lower jaw - 517 mm<sup>3</sup>. The leading shape is conus - 77% in upper jaw and 94,4% in lower (Diagrams 1-11). As a most often reason for theet extractions have been

Tabl. 1 - About the reasons for theet extractions

Kind of reasons for theet extractions	A upper jaw	A lower jaw
Hronical periodontitis	6	14
Thoot fracture	3	0
Thoot retention	1	0
Periimplantitis	1	1
Others	2	3

found the kind of periodontitis (tabl. 1). The comparison of initial and control results of implant's stability by Radio Frequency Analysis (R.F.A.) has manifested better stability of the implants as soon as the values that were below the standard it had reduced from 22.6% to 9.7%.

Most used implants were  $\emptyset$ 4.5mm /h 11 mm by 33.5% and  $\emptyset$ 3.5mm/14mm - 22.6%. Implants with  $\emptyset$ 3.5mm were placed mostly in upper jaw and the  $\emptyset$ 4.5mm by lower (tabl. 2).

Tabl. 2 - About kind of implants - Ankylos

Kind of implants Ankylos	A upper jaw			A lower jaw		
	Front.	Pm.	Mol.	Front.	Pm.	Mol.
A9.5	2	0	0	0	1	1
A11	2	2	1	0	0	0
A14	1	0	0	2	0	0
B9.5	0	0	0	1	3	4
B11	2	3	0	1	1	1
B14	0	0	0	2	0	1
Total	7	5	1	6	5	7

cor	frontal area of a lower jaw before implan relation betwen values volume bone fault-CT b	tation: one density-RFA
average value	1200 1000 800 600 400 200	□ value of bone's fault volume ■ value of CT bone density □ value of RFA
	A14 B11 B11 A9.5 A11 A11 A9 kind of Ankylos implants	.5

Diagram 1

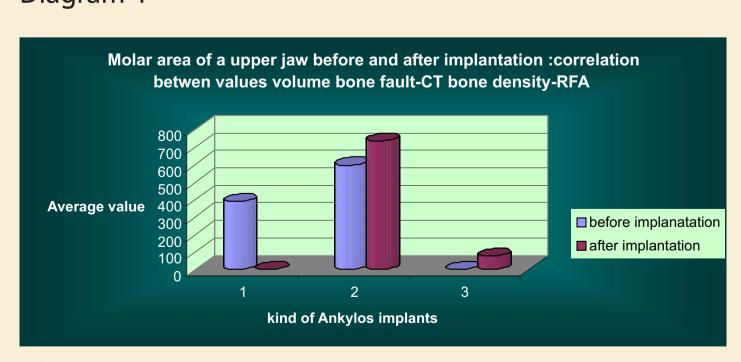


Diagram 5

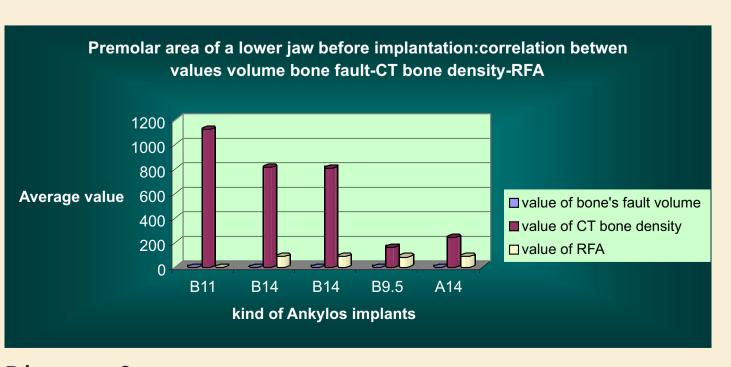


Diagram 9

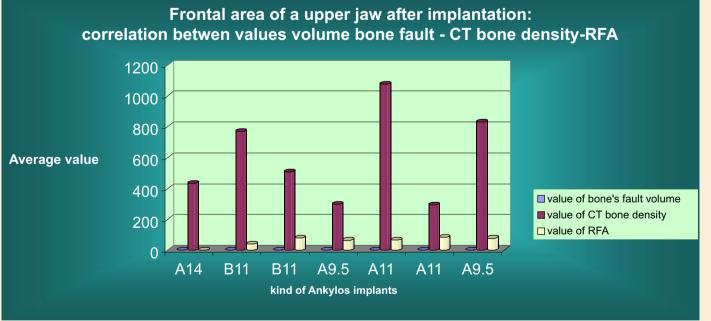


Diagram 2

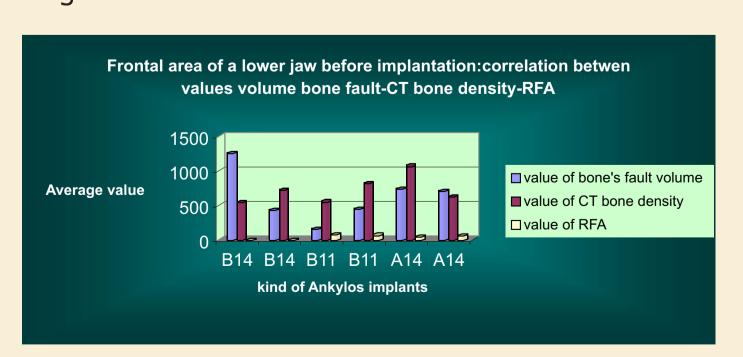


Diagram 6

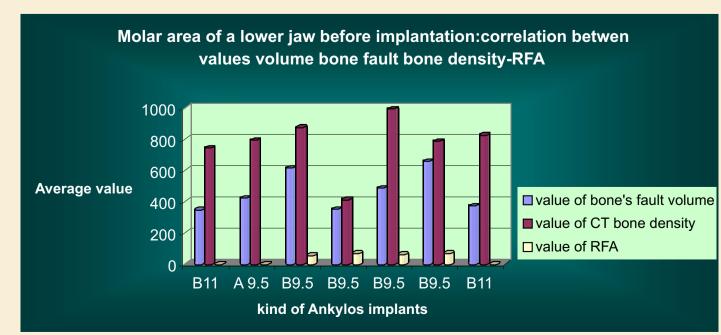


Diagram 10

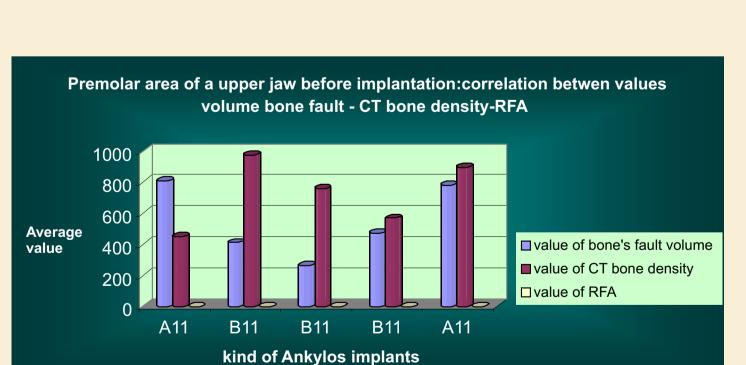


Diagram 3

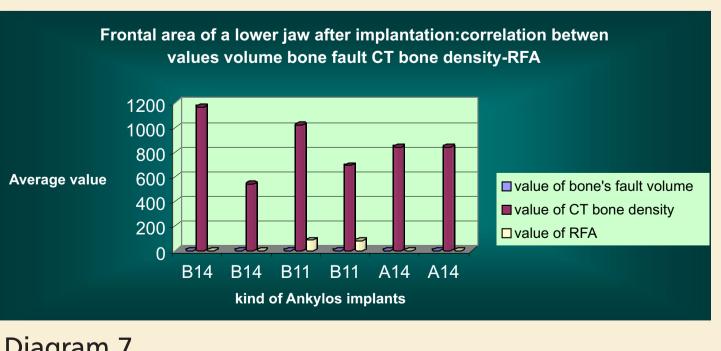


Diagram 7

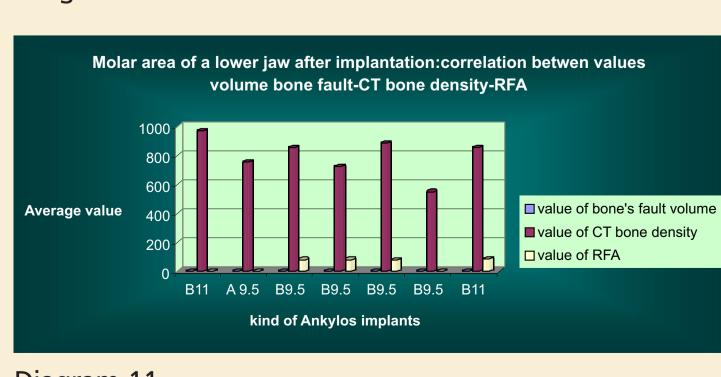


Diagram 11

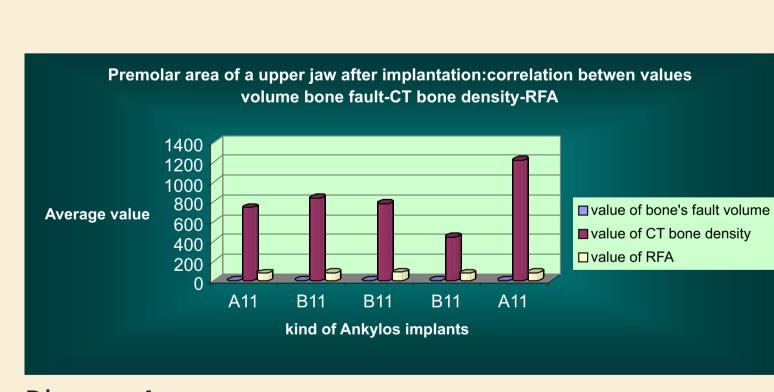


Diagram 4

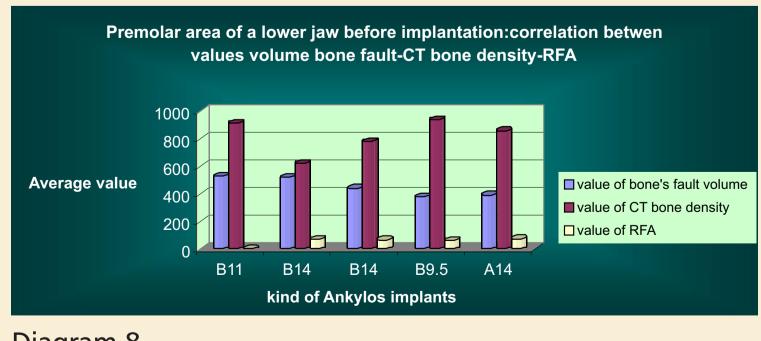


Diagram 8

## Conclusions

We consider that implants of Ankylos are extremely suitable for immediatly implanting in recently postextraction sockets and they have good survive with OsteoBiol's xenografts. The prime implant's stability and filling in periimplant's bone fault by 90.3% we should think that they are very good.

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