

CONTEMPORARY ANTIBIOPROPHYLAXIS OF DENTAL INFECTIOUS ENDOCARDITIS

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➤ **BACKGROUND:** Bacterial endocarditis is in many cases result of bacteremia produced by operative procedures, among which is tooth extraction. There is a strong indication for using efficient antibiotic cover for dental extractions and other operative procedures known to be followed by a bacteremia.

➤ **AIM** was to amount all literature acknowledgements for the prevention of endocarditis following dental procedures, as well as emphasizing the application of contemporary aspects and concepts for conservative and oral-surgical approach in these patients.

Table 1. *Categorization of patients with a risk of bacterial endocarditis* (JAMA 277 (22): 1794-1801, 1997)

Patients with a high risk of bacterial endocarditis
Artificial heart valves, including bio-prosthetics and homographic valves Earlier bacterial endocarditis Cyanotic innate heart diseases (e.g., Tetralogy of Fallot) Surgical corrections of systemic pulmonic shunts
Patients with a moderate risk of bacterial endocarditis
Innate valve dysfunctions (rheumatic heart disease) Hypertrophic cardiomyopathy Prolapse of mitral valve with valve-regurgitation Other congenital heart malformations
Patients with a low risk of bacterial endocarditis
Prolapse of mitral valve without regurgitation Rheumatic heart disease or Kawasaki Disease without valve dysfunction Psychological, functional or pure heart murmur Cardiac pacemakers or defibrillators Isolated secondary atrial septal defect

➤ **MATERIAL AND METHOD** Examination sample was consisted of 40 patients (20 adults and 20 children) with diagnosed cardiac defects, prosthetic cardiac valves and previous bacterial endocarditis in which 46 stomatological interventions were done.

- Preparation includes: laboratorial investigations, to establish stabile general health condition (sedimentation, leukocyte formula, fibrinogen, CRP, prothrombin time, glycaemia, urea and bilirubin)
- Antibiotic therapy before conservative and oral-surgical interventions (Caps. Ampicillini 2g or Clindamycini 600mg one hour before extraction).
- Patients were followed during 24, 48 hours, than after seven days and 30 days, with attention to observe possible general and local complications.

➤ RESULTS

Table 2. *Average values of the parameters of the blood-picture and the other lab-analysis*

Parameters	Average value	Referential values
sedimentation (1 hour)	16	male 13 / female 18
WBC	6,7 x10 ⁻³ /uL	4,5 - 10,5 x10 ⁻³ /uL
RBC	4,37 x10 ⁻⁶ /uL	4 - 6 x10 ⁻⁶ /uL
PLT	285 x10 ⁻³ /uL	150 - 450 x10 ⁻³ /uL
fibrinogen	3,2	2-4
AYT	0	5mg/L
CRP	0	< 200 IU / ml
glycemia	5,2 mmlol / L	3.5 - 6.5 mmlol / L
urea	4.1 mmlol / L	3.0 - 7.8 mmlol / L
Bilirubine (total)	10.3	6.8 - 20.5
Prothrombine time (PT)	14	11-16
INR	2-2,5	1

➤ **Safety dental procedures were performed after:**

- establish stabile general health condition (assign parameters from laboratorial findings were in the borders of referents values).
- selective indication for stomatological interventions
- precise antibiotic prophylaxis
- concordance from cardiologists.

➤ CONCLUSION

Selective approach and preparation, evaluation for basis disease and multidisciplinary collaboration with cardiologists, present fundamentals for safety and successful realization of indicated stomatological interventions without complications in basis disease.