



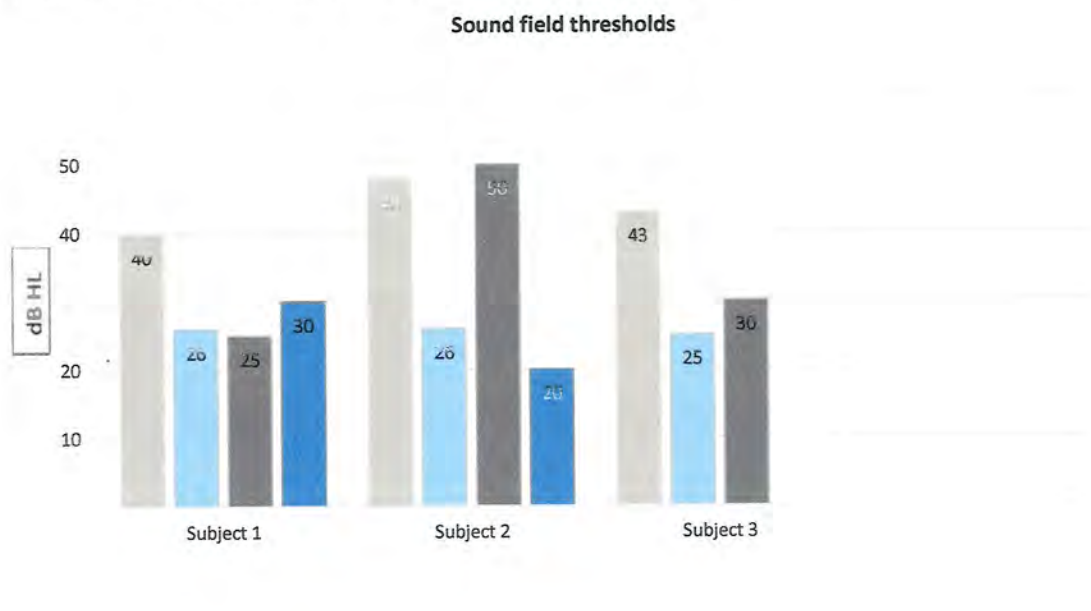
ВОЈНОМЕДИЦИНСКА АКАДЕМИЈА  
СЕКТОР ЗА ЛЕЧЕЊЕ  
10.10. 2019.године

The audiological benefit and subjective satisfaction of the contact mini hearing system, tested with Adults ( n=3. 2 female and 1 men)

**Introduction**

The contact mini system by BHM is a bone conduction hearing system which is used without surgery, but with means of a headband or a cap. It enables to transmit the sound perception via the skin through the skull directly to the inner ear. In this case study the speech comprehension of contact mini aided persons, who suffer from a conductive or middle ear hearing loss, from Microtia and/or Atresia, was tested. Their subjective satisfaction has been recorded with questionnaires.\*

Comparison sound field treshold aided and unaided



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Fig. 1: Representation of the Pure-Tone-Average (PTA4, 0,5, 1, 2 & 4 kHz) of the sound field thresholds unaided (gray) and with Contact mini system (blue) after acclimatization 1 or 3 weeks (n =3)

contact mini system		
Is the contact mini hearing system an useful hearing aid for you?	Yes it is 100%	
How would you describe the sound quality of the system?	Good 33,50%	Very good 66,50%
How would you describe the wearing comfort of the system?	Very comfort 33,50%	Exelent 66,50%

FIG.2: The results of the CONTACT MINI system questionnaire after 3 weeks wearing time. (n = 3)

### Material and methods

The understanding of speech in quiet has been tested with the „WRS“

For the understanding of speech in background noise the „OISA “ in Serbian language

has been used, with or without contact mini. With a

questionnaire focused on hearing systems the satisfaction of patients was recorded. The

data of the first test persons (n=3; 2f and1m) are presented here\*:

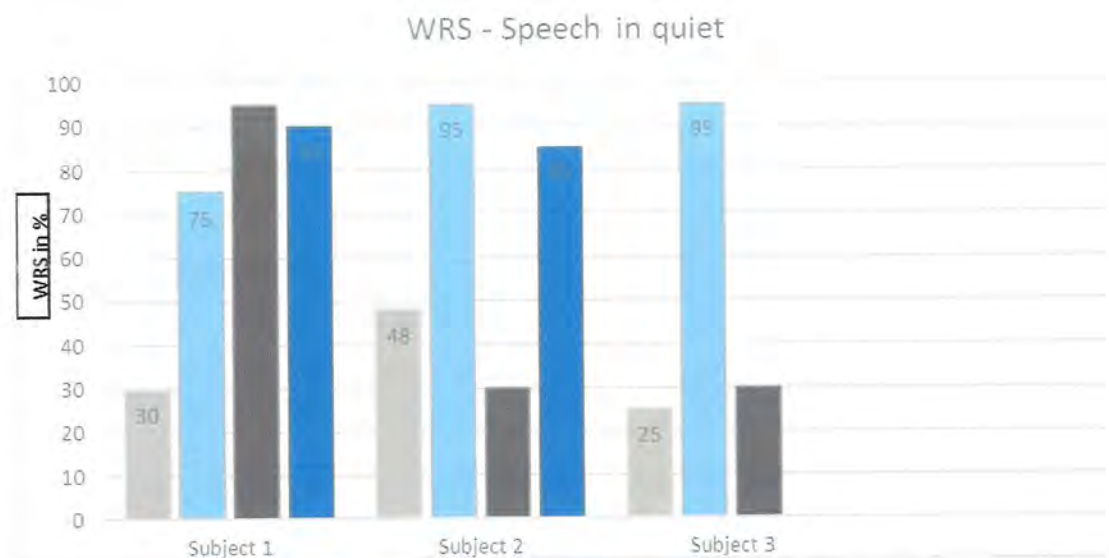


Fig. 3: Representation of the Word Recognition Score (WRS) unaided (gray) and with contact mini System (blue) after acclimatization 1 or 3 weeks (n = 3)

## Speech in noise

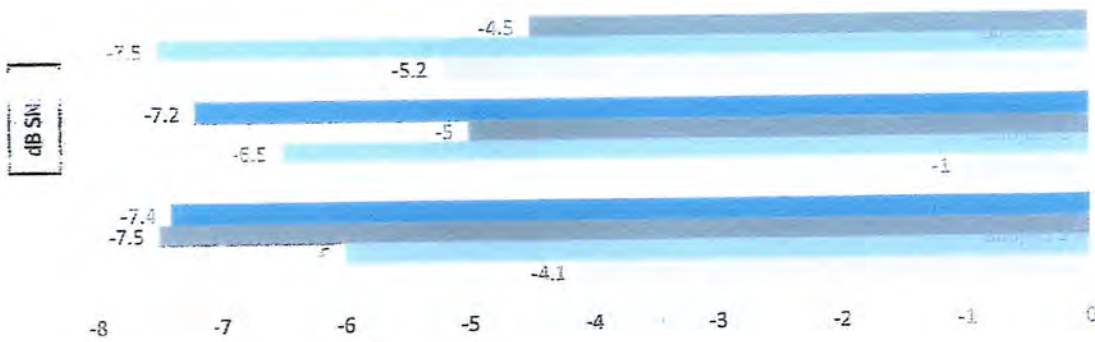


Fig.4: Results of the OLSA unaided (gray) and with contact mini System (blue) of individual patients after acclimatization 1 or 3 weeks (n = 3; 2f and 1m)

### Results

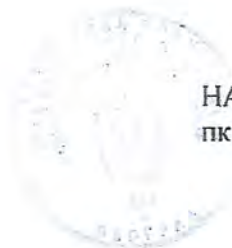
The understanding of speech for a monosyllable improved by 59 %. The understanding of speech with background noise was at -6,8 dB Sound Noise Ration (SNR) averagely. The functional average hearing gain improved by 18,20 dB HL.

The questionnaire states, that the contact mini is a very useful hearing device according to the test persons. The soundquality has been experienced as very good (.

### Conclusion

The results of the test persons show a good improvement with the contact mini system compared to an unaided situation.

All patients have explained a good tolerance/comfort when wearing the device and a significant benefit from the system.



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