

OZAKIHO OPERACE – ROČNÍ VÝSLEDKY Z NNH NA PODKLADĚ CELKOVÝCH 9-TI LETÝCH ZKUŠENOSTÍ



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- Konstrukce aortální chlopně z vlastního perikardu
- Komisury jsou o 2mm výše než původní
- Cípy jsou vyšší než nativní
- Koaptace cípů je více jak 1cm (velká plocha kontaktu)
- Dvojcípá (jednocípá) chlopeň může být převedena na trojcípou



Pat. 18 - 60

61 - 65

Pat. > 65

Pat > 75

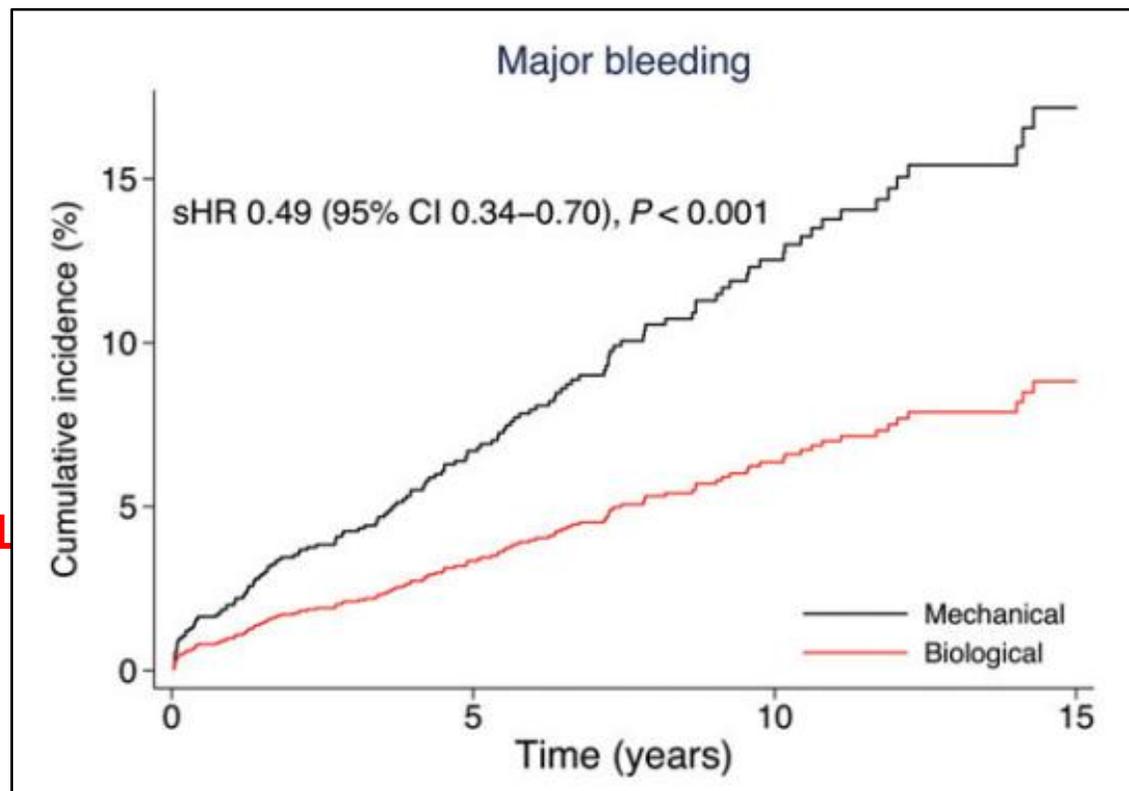
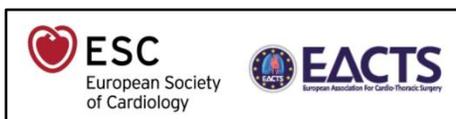


Mechanická chlopeň

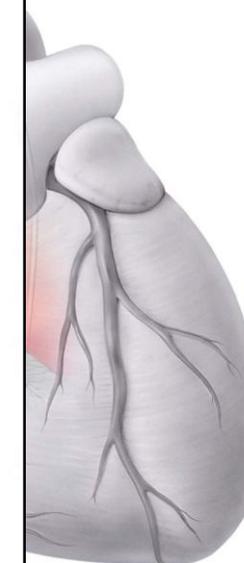
+ Dlouhodobá životnost

- **Potřeba doživotní antikoagulace**

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Glaser et al, 2015 Eur Heart J





- Vlastní tkáň
- Pohyblivý anulus (bez materiálu)
- Veliké otevření (nízký gradient)
- Není potřeba antikoagulace



- Operace není jednoduchá
- Nutná kompletní sternotomie
- TAVI je obtížná (výška cípů)
- Dlouhodobé výsledky (Ozaki)

Aortic valve neocuspidization using the Ozaki technique: A meta-analysis of reconstructed patient-level data



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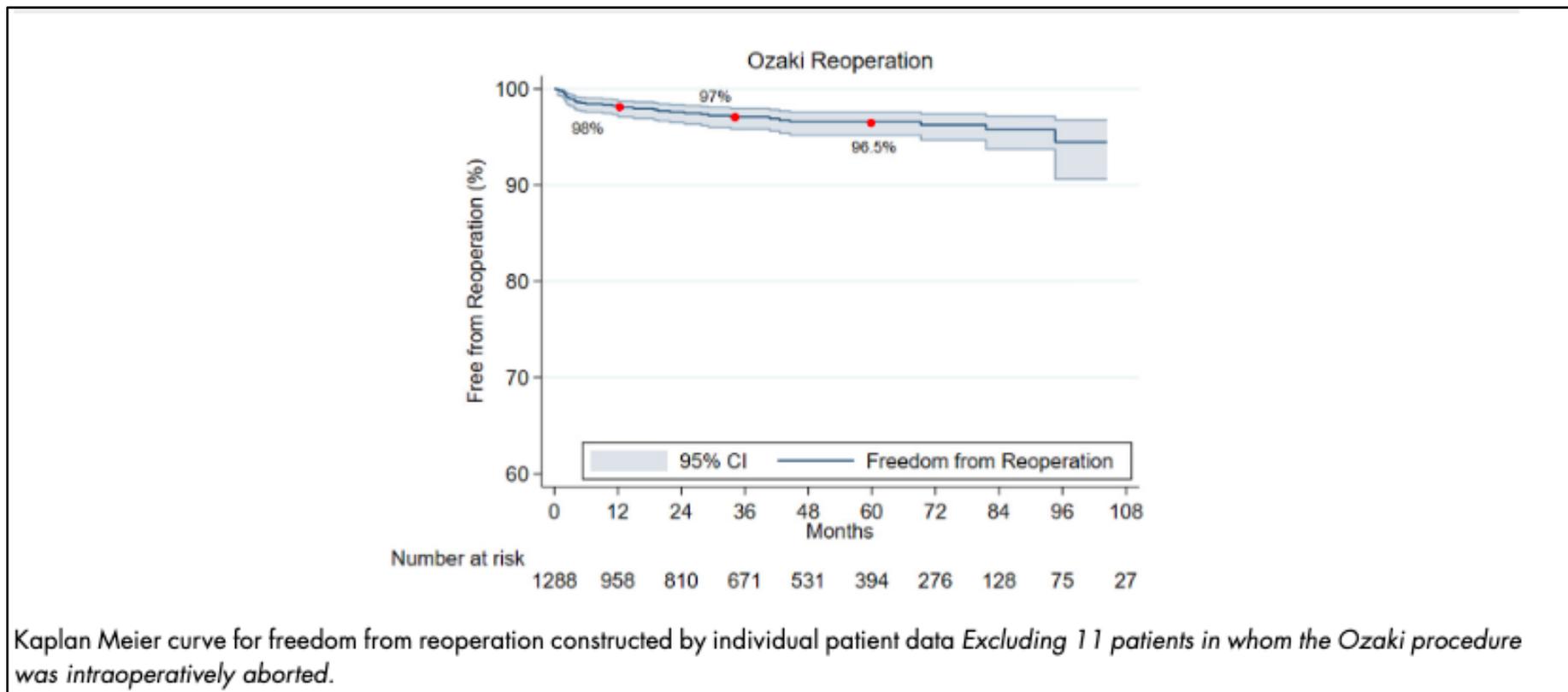
Abstract

Background Aortic valve neocuspidization using the Ozaki technique has shown promising results both in adults and children.

Methods A systematic search of the PubMed and Cochrane databases was performed up to November 13, 2021. Individual patient data were reconstructed and analyzed from the Kaplan-Meier curves of all eligible studies for time-to-event outcomes.

Results We included a total of 22 studies reporting on 1,891 patients that underwent Ozaki reconstruction. Mean age at the time of surgery was 43.2 ± 24.5 years (65 ± 12.3 years for adult patients and 12.3 ± 3.8 years for pediatric patients). The most common indication was aortic stenosis (46.4%, 95% CI 34.1-58.6). Mean cross-clamp and cardiopulmonary bypass duration were 106.8 ± 24.8 minutes and 135.2 ± 35.1 minutes, respectively. Permanent pacemaker was implanted in 0.7% (95% CI 0.4-1.2) of the patients. At discharge, mean effective orifice area was 2.1 ± 0.5 cm²/m². At latest follow-up, peak gradient was 15.7 ± 7.4 mm Hg and only 0.25% (95% CI 0-2.3) had moderate aortic insufficiency. In-hospital mortality was 0.7% (95% CI 0.1-1.7). Late mortality was 1.9% during a mean follow-up of 38.1 ± 23.8 months. One-year, 3-year, and 5-year freedom from reoperation rates were 98.0 %, 97.0 % and 96.5%, respectively. More than half of the reoperations were due to infective endocarditis (51.5%, 95% CI 18.3-84.0). In our cohort, the risk of endocarditis per patient per year was 0.5%.

Conclusions The midterm outcomes of the Ozaki procedure are excellent in terms of hemodynamics, survival, and freedom from reoperation. Acquiring long-term follow-up will help solidify this technique in the cardiac surgery armamentarium. (Am Heart J 2023;255:1-11.)



Mylonas et al, 2023 Am Heart J

Age	53,1 ± 15.4
Bicuspid	203 / 22 (68%)
Endocarditis	15
Ozaki jako reoperace (po AVR/P)	6
Samostatná AVR / Mini	135 / 14
Kombinovaně - AA, ACB, MKR, TKR	91, 46, 13, 6
Svorka / ECC	93 / 127 60 - 70min

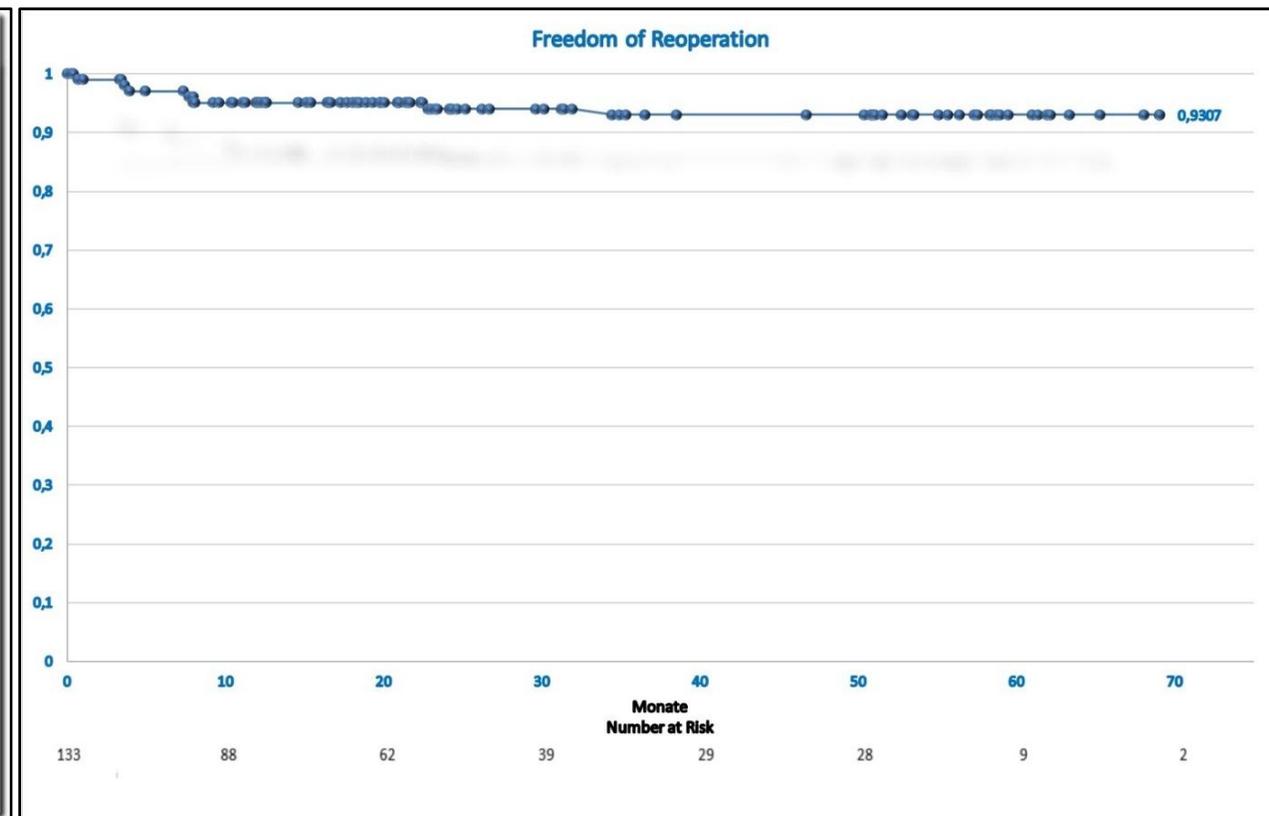
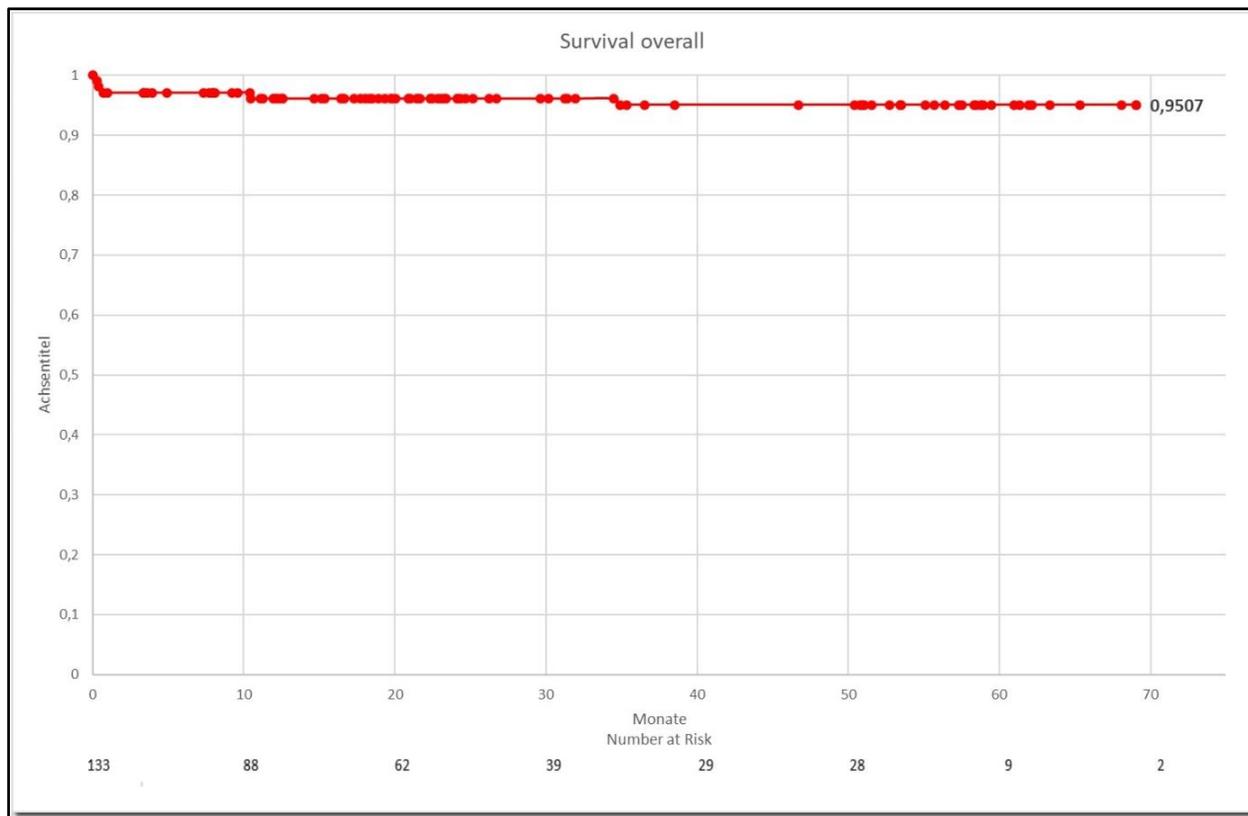
Age	48,2±9.3
Bicuspid	33 / 3 (77%)
Endocarditis	1
Ozaki jako reoperace	3
Samostatná AVR / Mini	7 / 1
Kombinovaně - AA, ACB, MKR, TKR	30, 5, 2, 0
Svorka / ECC	94 /122 60 - 70min

Časné výsledky	(43)	Nálezy na intraoperačním TEE	
Nemocniční úmrtnost	0	AI 0	42
ECMO (V-A)	0	AI 0-1°	1
Dialýsa	0	AI 1° - >	0
CMP (TIA)	0		
Porucha hojení rány	0	Re-klamp (tatáž OP)	6
PM implantation	0	Plocha ústí (EOA)	4,2 ± 1,4
Revize pro krvácení	0	Střední gradient (Pmean)	4,3 ± 2,1

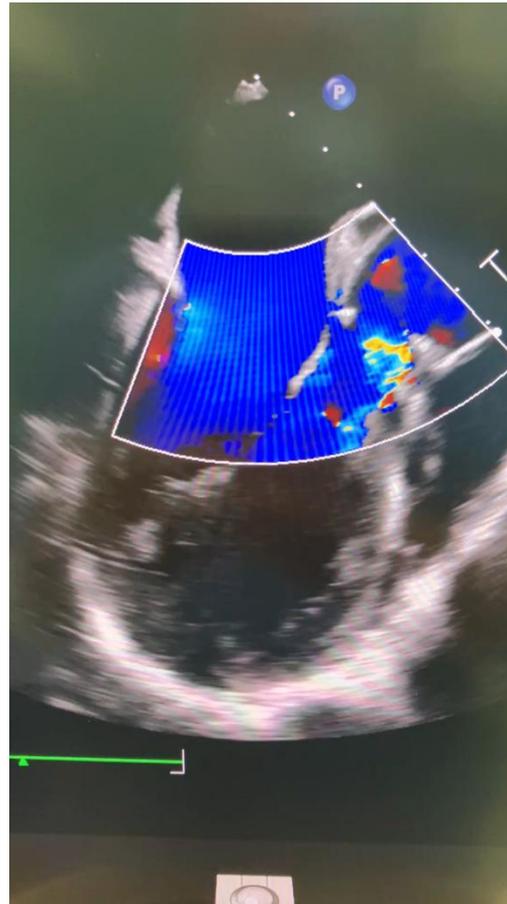
	42	Funkce chlopně	
Pozdní mortalita (0-valve related)	1	AI 0 nebo stopa	34
Reoperace (Endokarditida)	1	AI I° / II° / horší	1 / 1 / 0

$P_{\text{mean}} 4.4 \pm 2,2\text{mmHg}$

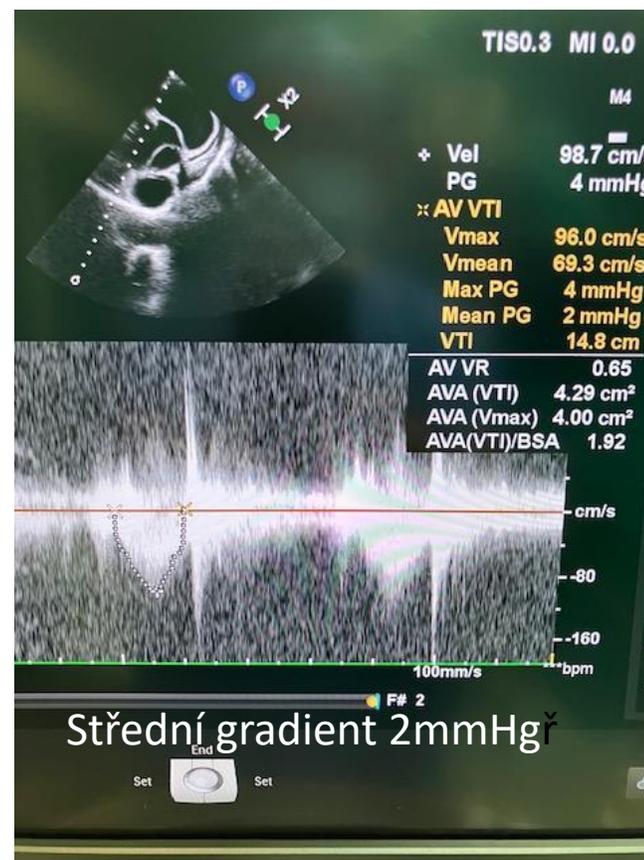
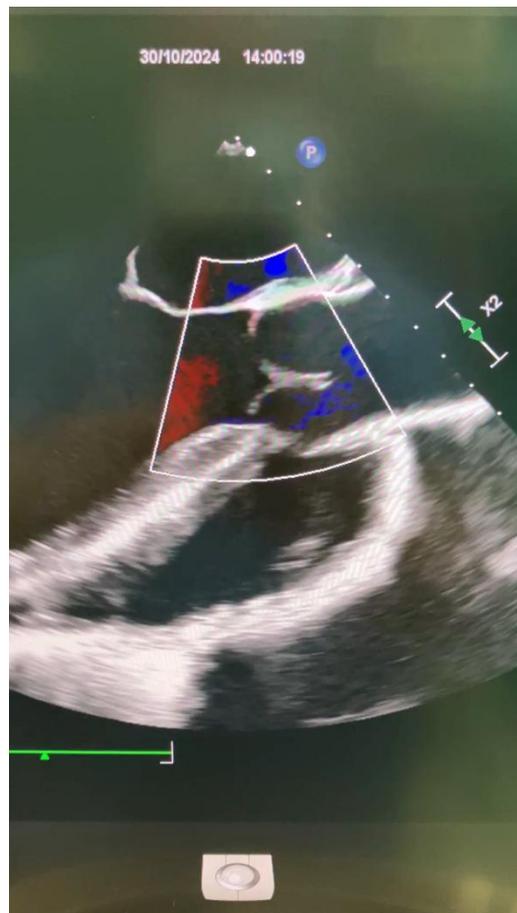
(1.0 – 11)



- Patient 36 roků - vrozená bi/unikuspidní chlopeň AI IV° AS I° (26/14)



- Ozaki (5-6-5) + plastika kořene pomocí perikardu



Cusps contra coronary ostia





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CASE REPORT
Coronary heart disease

Transcatheter aortic valve implantation after aortic valve neocuspidization using autologous pericardium: a case report

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- Vhodná alternativa pro mladé pacienty (pod 60 let)
- 2 kategorie (0-40; 40-60)
- Pacienti s endokarditidou profitují z této operace
- Reoperace po AVR (Ozaki) je možná (perikard)
- Vlastní perikard je nejlepší materiál
- Limitace – technicky náročná operace!

Děkuji za pozornost

