

# Decision Regret after Opting for Pain Control for Scaling and Root Planing

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## Objectives

- Population: patients with a need for scaling and root planing (SRP) during anti-infective or periodontal supportive therapy
- Intervention: choice for pain control during SRP (shared decision making with use of a decision board)
- Comparison: no pain control, intrapocket gel, injected anaesthesia
- Outcome: decision regret (DRS)
- Study design: observational study

## Methods

- N=159 participants with the need for SRP during anti-infective therapy or as retreatment in periodontal supportive therapy
- Shared decision making (SDM) for pain control using a decision board (DB), options were:
  - No anaesthesia (NO)
  - Intrapocket gel (GEL, Oraqix, Dentsply Sirona)
  - Injected anaesthesia (INJ, articaine 4%, Ultracain D-S, Sanofi-Aventis)
- Primary Outcome: decision regret scale (DRS)
- Secondary Outcomes: procedural pain (via VAS), future choice
- Evaluation after SRP by questionnaire

**Table 1.** Clinical characteristics assorted by patients' choice for pain control

	overall N=159	NO n=71 (45%)	GEL n=73 (46%)	INJ n=15 (9%)	p-value
SDM					
		n (%)			Pearson Chi-Square
Female	73 (46)	32 (45)	31 (43)	10 (67)	.226
Male	86 (54)	39 (55)	42 (57)	5 (33)	
Anti-infective	41 (26)	4 (6)	25 (35)	12 (80)	.000
Retreatment	117 (74)	67 (94)	47 (65)	3 (20)	
		Mean ± SD			Anova
Age, years	61±11	64±11	60±11	51±7	.000
No. of teeth	22.5±5.2	22.1±5.8	22.8±4.9	25.5±3.8	.256
No. of treated teeth	6.1±4.4	4.6±3.7	7.0±4.7	9.0±4.2	.000
PPD max.	6.4±1.5	6.1±1.4	6.5±1.4	6.7±2.1	.220

**Table 2.** DRS-values after opting for pain control for SRP

NO	GEL	INJ	p-value
Mean±SD			ANOVA
Range			
5 ± 10 0-50	6 ± 12 0-70	2 ± 7 0-25	.503

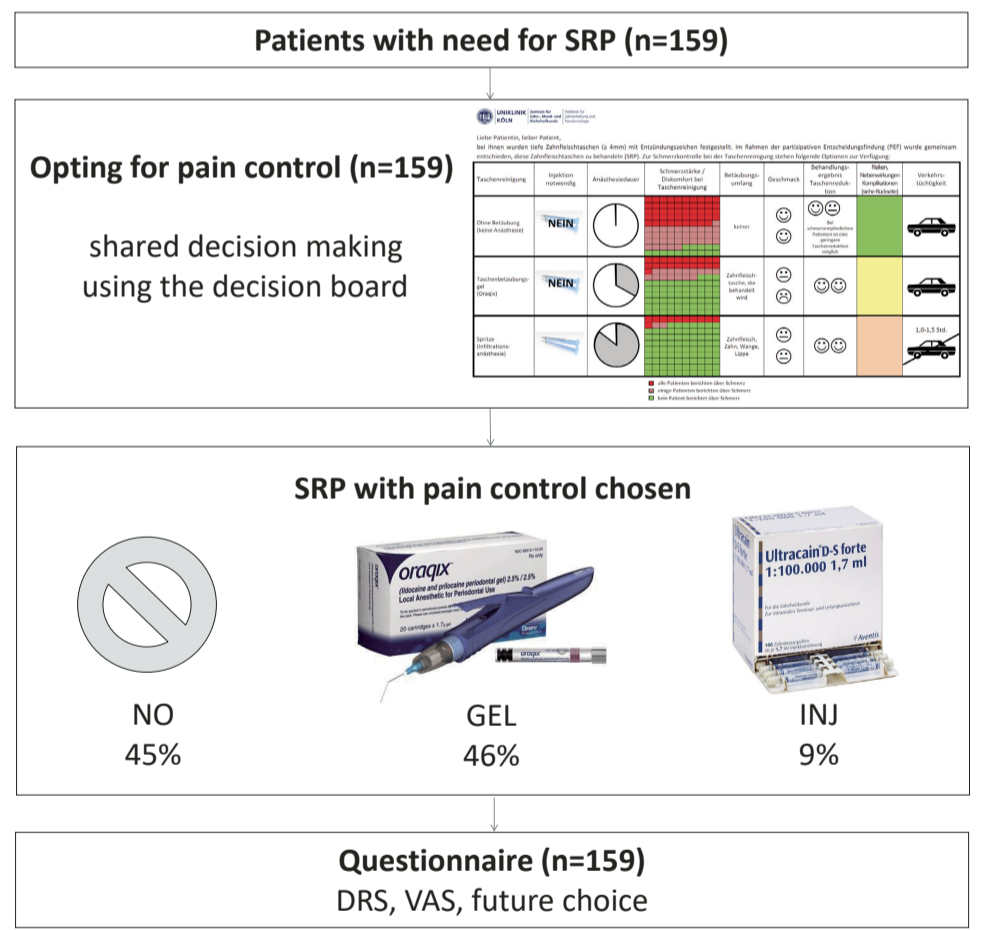
**Table 3.** Future choice due to procedural pain by VAS

NO	GEL	INJ	p-value
Mean±SD			ANOVA
Range			
16.4 ± 21.9 0-90	24.2 ± 24.0 0-85	25.6 ± 25.9 0-90	.155

## Results

- 88 patients opted for anaesthesia, 73 (83%) of them for GEL and 15 (17%) for INJ.
- DRS values were noticeably low and comparable between the groups ( $p>.05$ ).
- Overall, patients were satisfied with their choice (98%), reported no regret (94%), and would take the same decision for future treatments (96%). Additionally, they valued their choice as smart (97%) and not harmful (97%).
- These outcomes were consistent for the subgroups, showing no intragroup differences ( $p>.05$ ).
- Distribution of anaesthesia choice was affected by treatment point ( $p=.000$ ) and number of teeth treated ( $p=0.000$ ). 80% choosing INJ underwent anti-infective therapy, 65% opting for GEL received retreatment during supportive therapy.
- Procedural pain during SRP was distributed equally between the groups ( $p>.05$ ), with an overall mean of  $20.5 \pm 23.0$  and a range between 0 to 90. Future choice of pain control was not influenced by procedural pain ( $p=.155$ ).

**Figure 1.** Study flow chart



## Conclusion

- The use of a decision board during shared decision making to choose pain control for SRP yielded high levels of satisfaction / low levels of regret irrespective of the option chosen.
- Patients undergoing SRP for the first time opted more often for profound pain control by injection, whereas experienced patients undergoing supportive therapy preferred anaesthesia gel or no pain control.
- As a limitation to the study design, it was not possible to assess subjects' individual difference factors that may have influenced their decision making.
- In this population, no impact of procedural pain on future anaesthesia choice was found, whereas patients receiving SRP for the first time and those with a greater number of teeth requiring treatment tend to opt for invasive anaesthesia.