

I¹³¹ Sialadenitis: Incidence & Management

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Disclosure

- Relationships with commercial interests:
 - None

Objectives

- Incidence
- Prevention
- Management
- Sialendoscopy

Salivary gland dysfunction after radioactive iodine (I-131) therapy in patients following total thyroidectomy: emphasis on radioactive iodine therapy dose ☆,☆☆

Han Na Lee ^a, Ji Young An ^a, Kyung Mi Lee ^a, Eui Jong Kim ^{a,*}, Woo Suk Choi ^a, Deog Yoon Kim ^b

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Clinical Imaging 39 (2015) 396–400

- 880 patients who underwent TT & I 131
- 355 patients with post op u/s
- 239 patients whose u/s included salivary glands
- 164 patients who could be reached for f/u

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- 130 female 34 male, mean age 49
 - 30 mCi - 46
 - 100 mCi - 45
 - 150 mCi - 62
 - 200 mCi - 4

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- 76/164 (46%) patients reported symptoms
 - 46 (28%) swelling
 - 41 (25%) xerostomia
 - 18 (11%) pain
 - 25 (15%) >2 symptoms

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- Symptom incidence vs dose:
 - 30 mCi: 4/46 (9%)
 - 100 mCi: 21/45 (47%)
 - 150 mCi: 43/62 (69%)
 - 200 mCi: 2/4 (50%)

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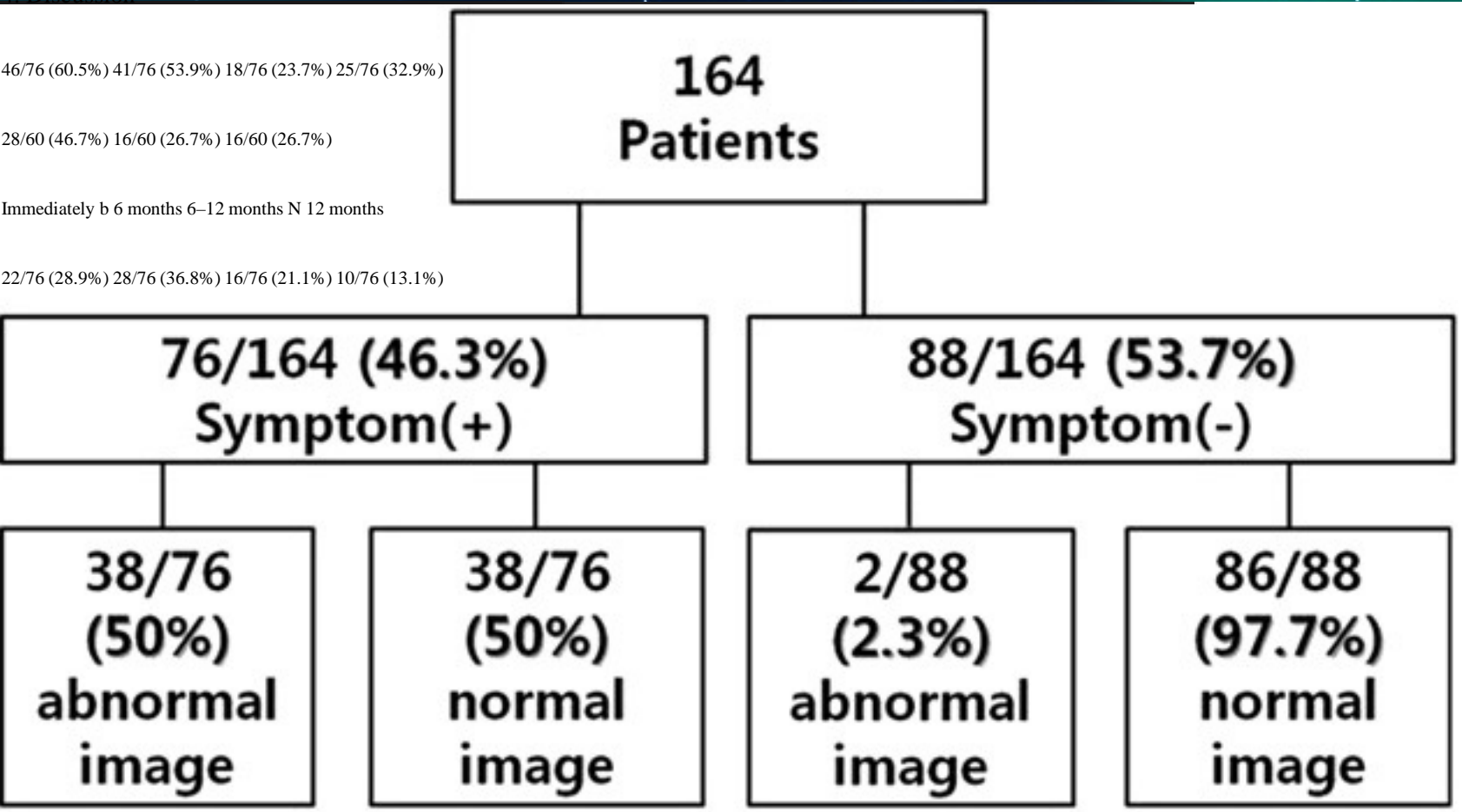
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Swelling Xerostomia Pain

N2 Sx

4. Discussion



Prevention

- Massage: shown to reduce Tc-99m accumulation
- Incidence of sialadenitis 64% vs 37% when sialogogues used immediately vs. starting 24 hrs after I 131
- Vitamin C administered at 1, 5, 13 or 25 hrs post I 131 did not show any difference in I 131 absorbed dose
- Case report found that sialogogues substantially reduced measured radioactivity within parotid glands

Prevention

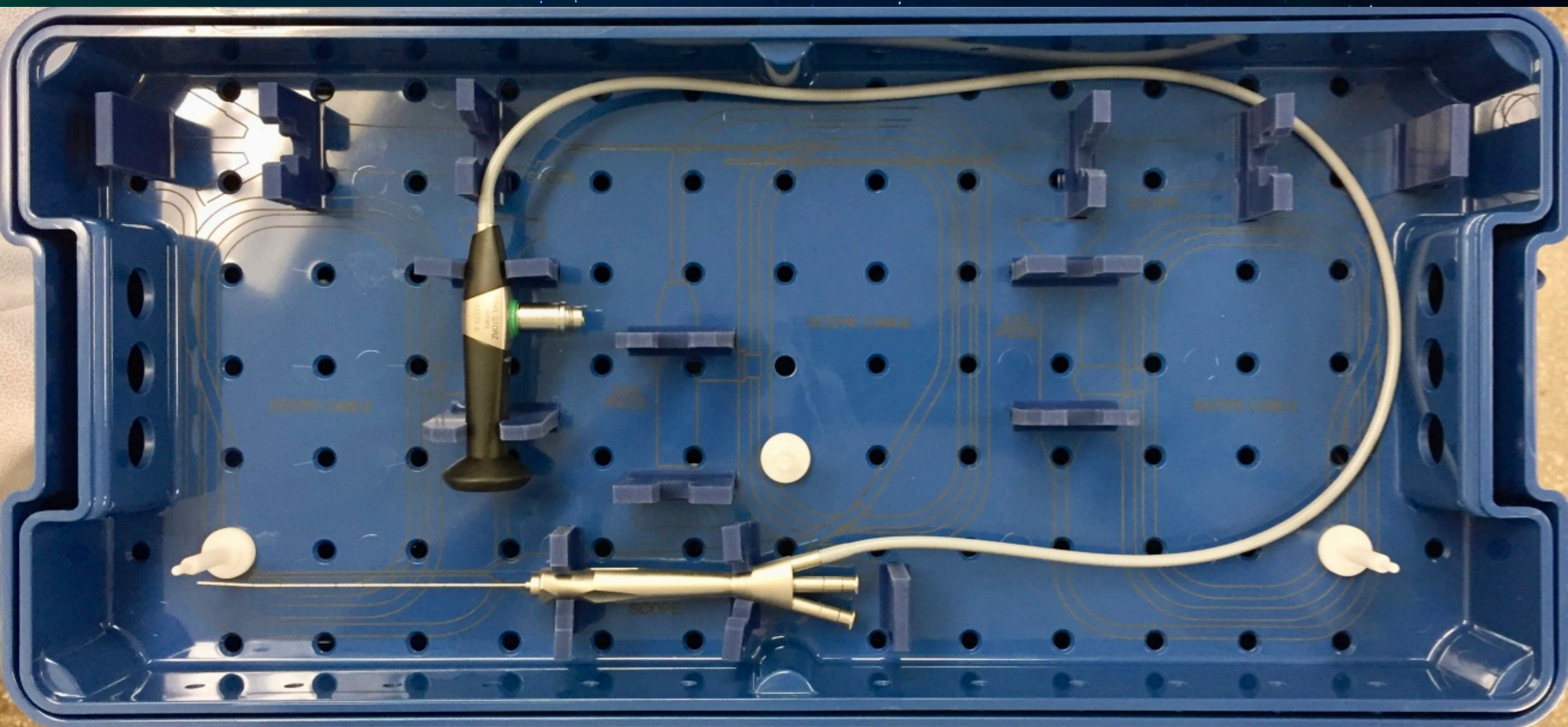
- Pilocarpine study treated everyone with sialogogues, massage, dexamethasone, and randomized to pilocarpine/placebo
- No instances of xerostomia in either group
- 1 patient with sialadenitis in pilocarpine group, 2 patients in control group
- Amifostine - 2 RCT's did not show any benefit

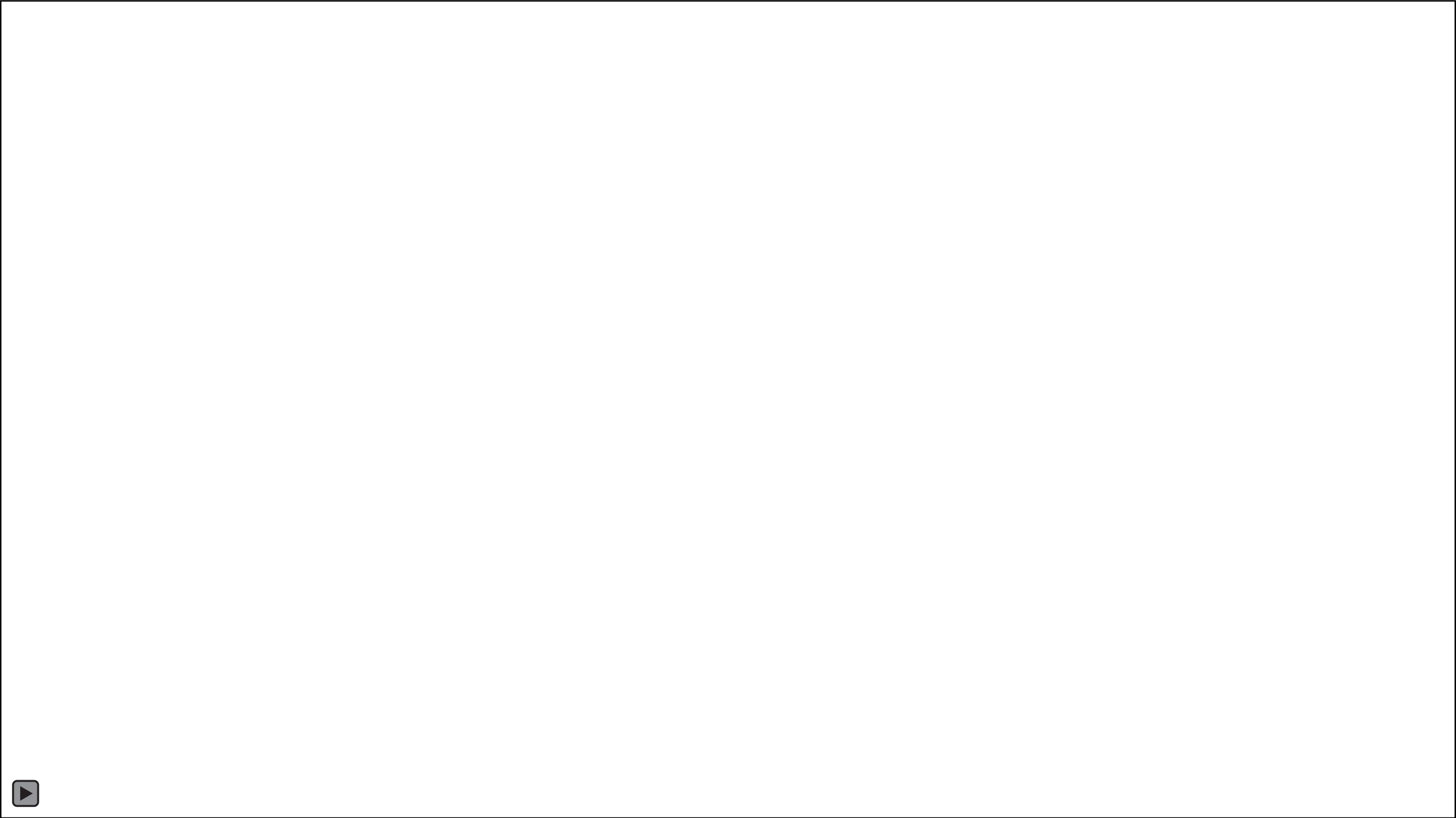
Management

- Hydration
- Massage
- Sialogogues
- Antibiotics

Sialendoscopy

- Difficult to measure effectiveness
- Level 3 & 4 evidence
- Limited case series





Interventional sialendoscopy for radioiodine-induced sialadenitis: quo vadis?

La scialoendoscopia interventistica per le scialoadeniti radioiodio-indotte: quo vadis?

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- 8 studies, 122 patients, 264 endoscopic procedures
- Ductal stenosis and mucous plugs in 85%
- Complete or partial resolution in 89%

Therapeutic Sialendoscopy for the Management of Radioiodine Sialadenitis

Brandon L. Prendes, MD; Lisa A. Orloff, MD; David W. Eisele, MD

Arch Otolaryngol Head Neck Surg. 2012;138(1):15-19

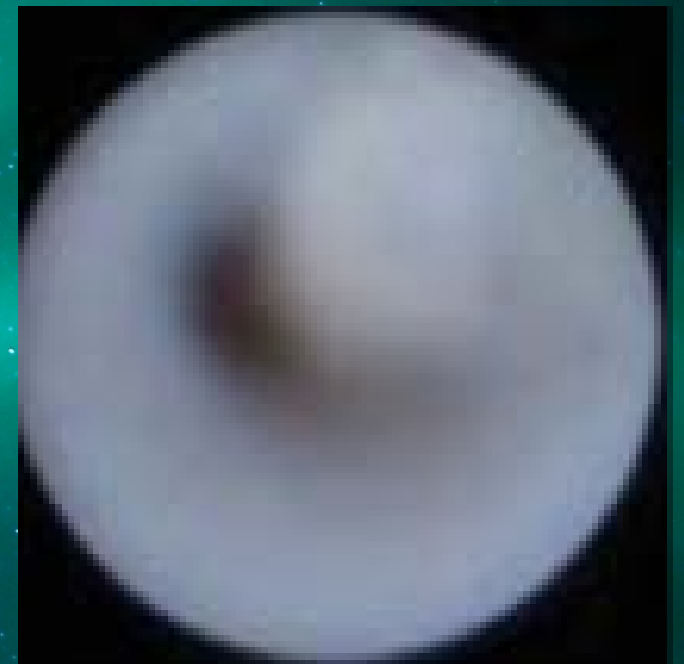
- 9 female, 2 male, average age 51
- 5 patients had 2 I131 treatments, 1 patient 3 I131 treatments
- Mean cumulative dose 250 (100-350)mCi in 4 patients

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- All patients “failed” conservative management
- Typical endoscopic findings of duct pallor, debris, mucus plugs & stenosis
- 6 patients reported complete resolution; 4 patients partial resolution (mean f/u 18/12)
- 1 patient underwent parotidectomy



Sialadenitis Without Sialolithiasis: Prospective Outcomes After Sialendoscopy-Assisted Salivary Duct Surgery

Elise A. Delagnes, MA; Annick Aubin-Pouliot, MD; Melissa Zheng, BA; Jolie L. Chang, MD*;
William R. Ryan, MD*
Laryngoscope, 127:1073-1079, 2017

- Prospective study of chronic sialadenitis patients
- COSS questionnaire pre and 3 months post op
- Total of 37 glands treated
- I 131: 11 parotid & 10 submandibular glands (9 patients)
- Did not document I 131 dosage

COSS Questionnaire

UCSF Chronic Obstructive Sialadenitis Symptoms (COSS) Questionnaire

Today's Date _____ Your Name _____

Circle Side and Gland Affected: 1. RIGHT or LEFT 2. PAROTID or SUBMANDIBULAR

Please read each question below carefully. To answer a question, select ONE of the numbers that is listed for that question, and draw a CIRCLE around it like this: (10%) or (1).

Over the PAST MONTH...

1. What percentage of your time awake do you experience DISCOMFORT in the area of your salivary gland when NOT touching/pressing on the area?

Never ► 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100% ◄ Constantly

2. How SEVERE is this discomfort?

No discomfort ► 0 1 2 3 4 5 6 7 8 9 10 ◄ Very Severe

3. What percentage of your time awake do you experience DISCOMFORT in the area of your salivary gland when touching/pressing on the area?

Never ► 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100% ◄ Constantly

4. How SEVERE is this discomfort?

No discomfort ► 0 1 2 3 4 5 6 7 8 9 10 ◄ Very Severe

Over the PAST MONTH...

5. What percentage of meals do you experience SWELLING in the area of your salivary gland DURING MEALS?

Never ► 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100% ◄ Every meal

6. How SEVERE is this swelling?

No swelling ► 0 1 2 3 4 5 6 7 8 9 10 ◄ Very Severe

7. What percentage of the time do you experience SWELLING in the area of your salivary gland in BETWEEN MEALS?

Never ► 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100% ◄ Always

8. How SEVERE is this swelling?

No swelling ► 0 1 2 3 4 5 6 7 8 9 10 ◄ Very Severe

9. Is this swelling noticeable by OTHERS?

Not at all ► 0 1 2 3 4 5 6 7 8 9 10 ◄ Always

10. Are you EMBARRASSED to be seen in public when your symptoms are active?

Not at all ► 0 1 2 3 4 5 6 7 8 9 10 ◄ Always

COSS Questionnaire

Please read each question below carefully. To answer a question, select ONE of the numbers that is listed for that question, and draw a CIRCLE around it like this: (10%) or (1).

Over the PAST MONTH, what percentage of the time do you experienced:

Never

Constantly

11. Too LITTLE saliva (dry mouth)?

0% 10 20 30 40 50 60 70 80 90 100%

12. Too MUCH saliva?

0% 10 20 30 40 50 60 70 80 90 100%

13. A foul taste in your mouth?

0% 10 20 30 40 50 60 70 80 90 100%

14. A taste of blood in your mouth?

0% 10 20 30 40 50 60 70 80 90 100%

Over the PAST MONTH, how much do your symptoms affect your ability to:

Not at all

Very severely

15. Swallow?

0 1 2 3 4 5 6 7 8 9 10

16. Speak?

0 1 2 3 4 5 6 7 8 9 10

17. Open your mouth?

0 1 2 3 4 5 6 7 8 9 10

18. Chew?

0 1 2 3 4 5 6 7 8 9 10

Over the PAST MONTH, how much do your symptoms impact:

Not at all

Very severely

19. Your sleep?

0 1 2 3 4 5 6 7 8 9 10

20. Your daily activities?

0 1 2 3 4 5 6 7 8 9 10

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- Defined complete, partial and no resolution as COSS scores of <10, 10-25, >25
- Major, minor improvement, no change, worsening defined as -10, -5, -4 to +4, or +5 points
- Procedure included endoscopy, dilation, irrigation, stenting, steroid instillation according to unique circumstances

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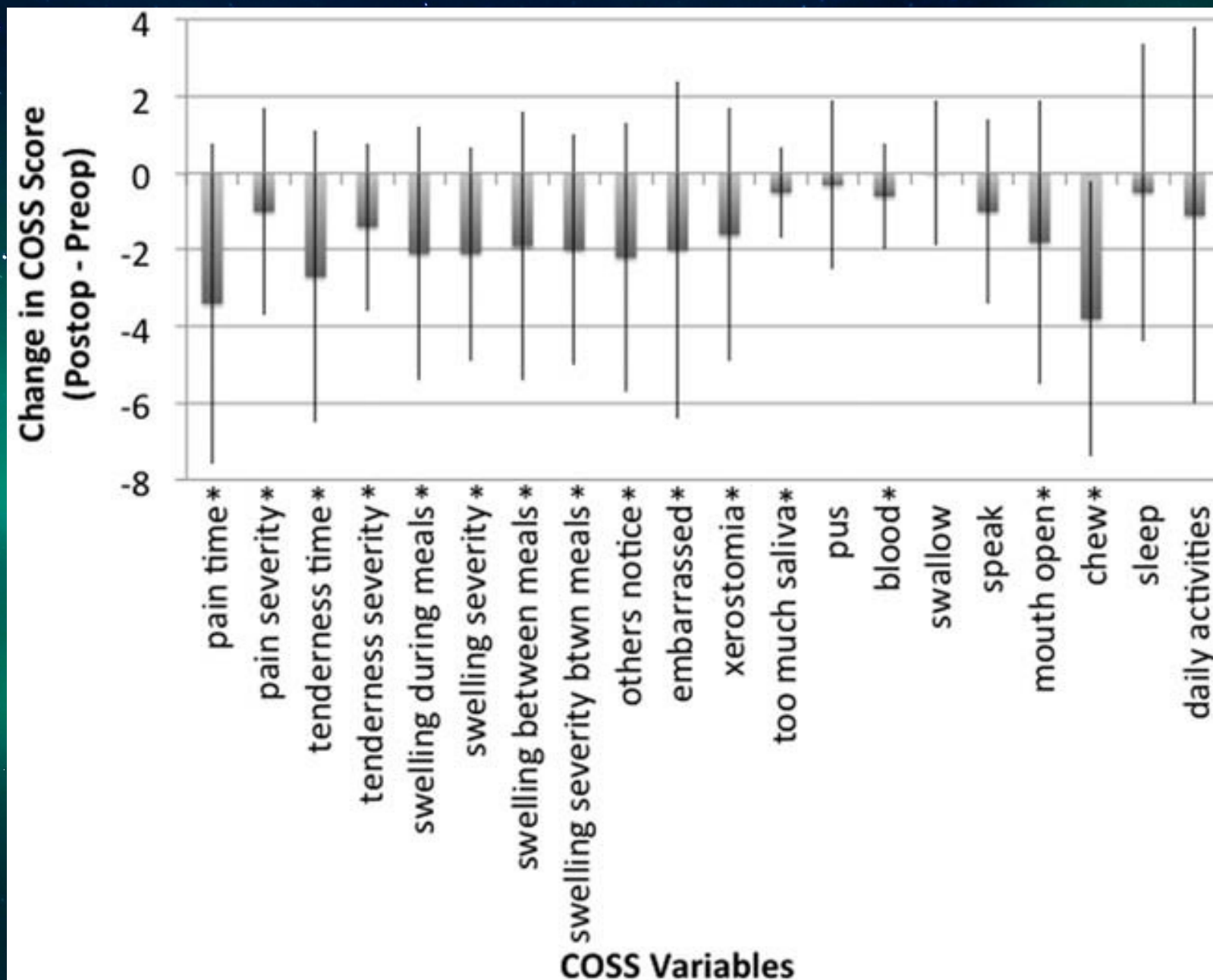
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- Results:
 - 3/21 glands in one | 131 patient found to have complete stenosis
 - Remainder able to be treated as planned

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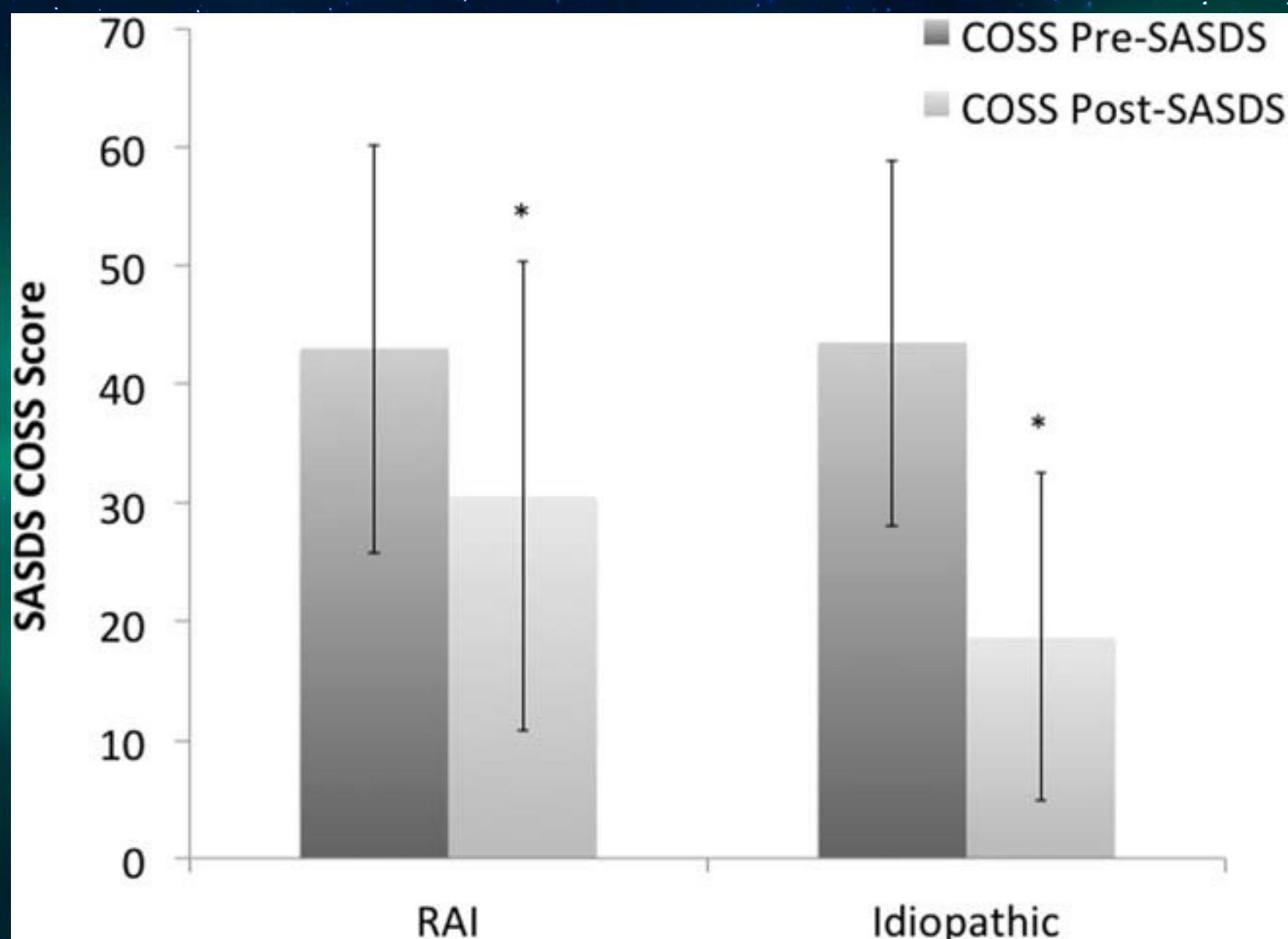


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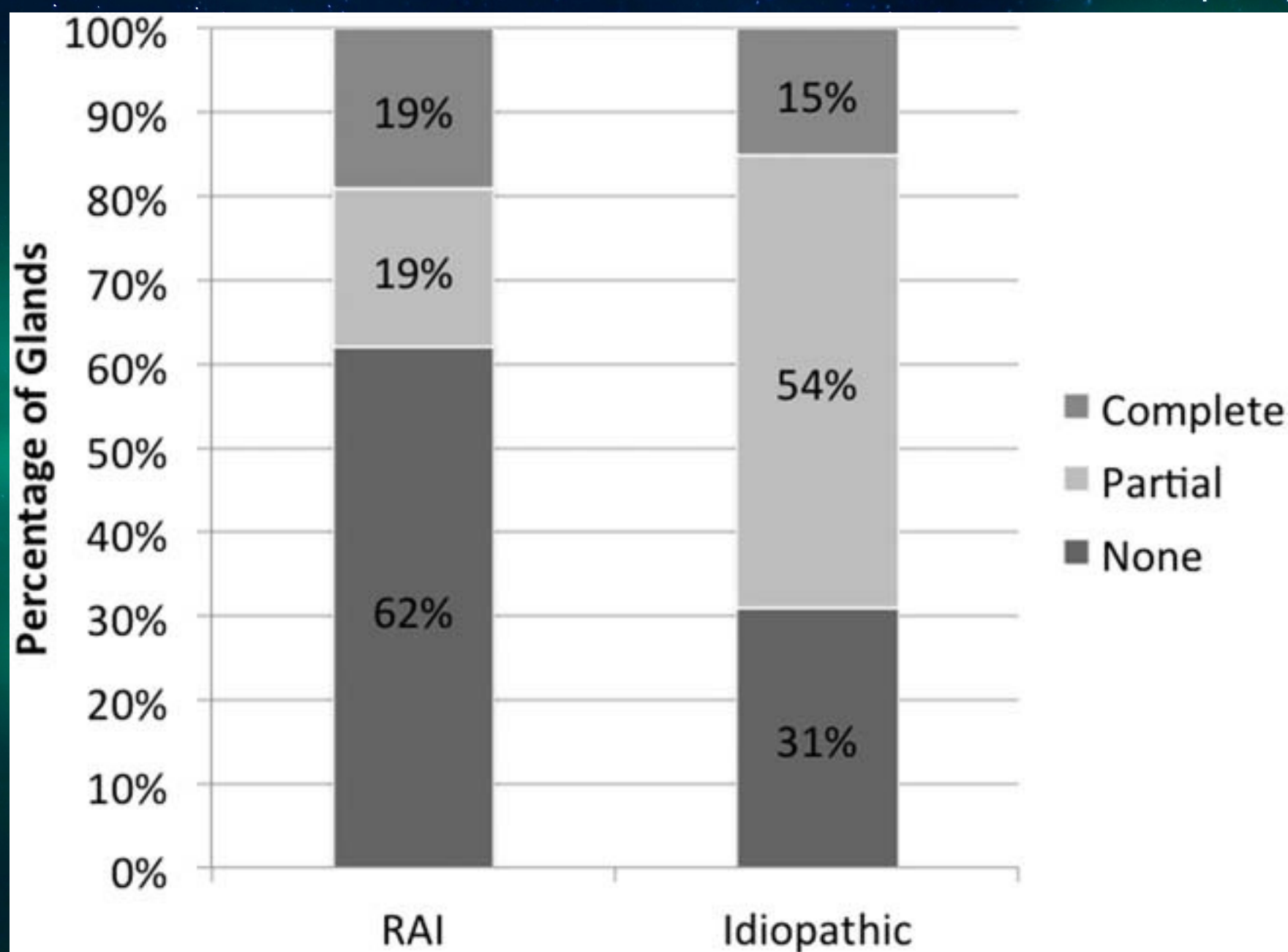


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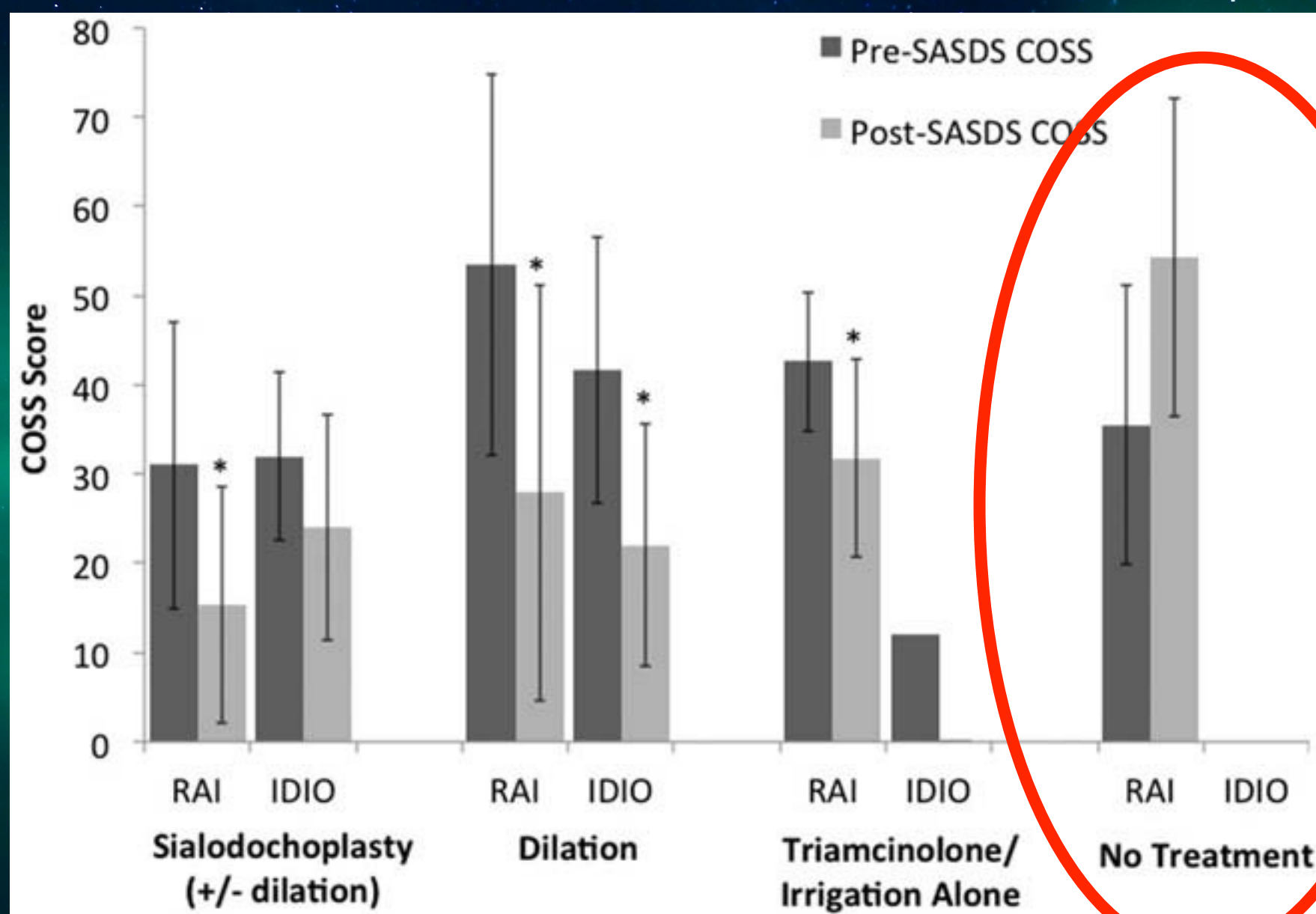


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Conclusions

- Source of morbidity in some patients after I 131
- May be underreported
- Controversies in methods of prevention
- Variation in reported incidence of chronic sialadenitis
- Sialendoscopy may be of benefit in refractory cases