Glans Necrosis Following Penile Implant: Etiology and Treatment Suggestions

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Glans Necrosis After Penile Implant Is Rare, but Unfortunately, Incidence Is Increasing Lately!

Only five cases glans ischemia/necrosis found in literature
We gathered 19 from USA, UK, Saudi, Germany, Spain and Brazil
8 Rods and 11 IPP
We defined risk factors and surgical maneuvers likely to predispose
5 Risks & 4 Maneuvers Predispose Glans Ischemia

Smoking, Severe ASCVD, Radiation, Previous Implant Surgery, Diabetes

>80% of patients had (3 of 5) 60% of comorbidities
50% of patients had (4 of 5) 80% of comorbidities

Subcoronal Incision, Urethral Injury/Repair, Sliding Procedure, Elastic wrap
90% had subcoronal incision (circumcision)
64% urethral mobilization for sliding technique, urethral injury or repair
78% had elastic wrap of penis
Dorsal arteries are compromised by risk factors i.e. comorbidities. Penile rigidity 2º implant must further limit flow of dorsal arteries.

Corpus spongiosum compromised by subcoronal incision, urethral mobilization, & elastic wrap with Foley in place.
What Is The Sliding Procedure?
A Penile Lengthening Surgery Gaining Popularity

Used for penile lengthening: Average length gain 2.5-3 cm
6 patients in this series had sliding procedures for penile length
All 6 patients had normal penile Doppler

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Glans Necrosis -- Typical Patient
Diabetic, Rad RX, IPP Removal, ASCVD, Smoker – 100% Risk Factors
Semi Rigid Rods & Coincident Circumcision

The Physician tried to take the patient back to surgery for removal but the patient talked him out of it.
This patient was obsessed with penile length. He desired a longer penis and wanted preservation of implant at all costs.
Many Comorbidities in Patient:

Beware

- Diabetes
- Smoking
- Previous implant removal
- Severe ASCVD
- History of radiation

Avoid these Maneuvers in these Patients

- Subcoronal incision, penile degloving, coincident circumcision
- Sliding technique for penile lengthening
- Simultaneous distal urethral repair with implant preservation
- Occlusive elastic dressing

>80% of Patients Had >60% of Comorbidities

≥90% Patients Had Subcoronal Incision...

6 of 6 Sliding Procedure Had OK Doppler...
What If We Remove the Implant Immediately?

67 y. o, ASCVD, Diabetic, Smoker, Elastic Wrap
Infrapubic IPP & Coincident Circumcision

Pre Op Doppler OK
The next morning … note hematoma under circumcision
Immediate Implant Removal May Reverse Glans Necrosis

Treated with immediate removal and hyperbaric oxygen

Etiology? Dorsal arteries compromised and circumcision hematoma put pressure on urethral blood supply
Conclusions

19 Cases of Glans Necrosis After Penile Implant

15 cases handled w/ observation & implant preservation ... all had glans necrosis
11 of 14 (79%) eventually had removal of prosthesis: some up to 6 months later

4 cases handled with immediate implant removal ... All had no sequelae
2 patient subsequently reimplanted penoscrotal without difficulty
What’s The Take Home Message …?

When You See an Congested Glans the Next Morning After Penile Implant.

It Isn’t “Congested” ... It’s Ischemic!

Preserving Implant Is a Mistake

When In Doubt, Take It Out!