Surgical Creation of “RIVal” Bicuspid Valve and its Place in The Treatment Of Venous Ulceration

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Longitudinal Internal Valvuloplasty by Kistner

Transverse Internal Valvuloplasty by Raju

“T” Internal Valvuloplasty by Sottiurai (Modified by Perrin)

Trapdoor Internal Valvuloplasty by Tripathi

No Disclosures
"Reefing" - mainstay of valve repair

Post-Valvuloplasty Thrombosis
Supra-valvular Technique (Raju) 4.5%
Modified "T" Sottiurai Technique (Perrin) 8.8%
Trapdoor Technique (Tripathi) 6.7%

Valve resorption 6.1% of valve stations

Cumulatively, these two complications accounted for 12.8% of valvuloplasty

Neo-intimal Hyperplasia

• A possible disadvantage of the reefing technique is the resultant heaped up commissural junctions by excessive plicated valvular rugal folds.
• This may result in areas of increased cicatization that may be space occupying with reduction of functional valve area as seen in our previous experience.

Reduction internal valvuloplasty is a new technical improvement on plication internal valvuloplasty for primary deep vein valvular incompetence

Fig 1. A, Intervascular distance. B, Transcommissural diameter.
RIVal Technique - Conclusions

1. Complete departure from the reefing technique that has so far been the mainstay of valvuloplasties.

2. Based on valve station measurements in an attempt to make internal valvuloplasty an exacting objective procedure.

3. At 2 yrs, 100% patency and 87.5% competency of repaired valves.

4. Freedom from C6 ulcers at 2 years - 88.9%.

5. The RIVAl technique by trapdoor access has now replaced the earlier technique of reefing in our practice of repair of deep vein valves.