

Treatment of stress urinary incontinence by autologous adipose-derived mesenchymal stem cells: a pilot study

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Introduction:

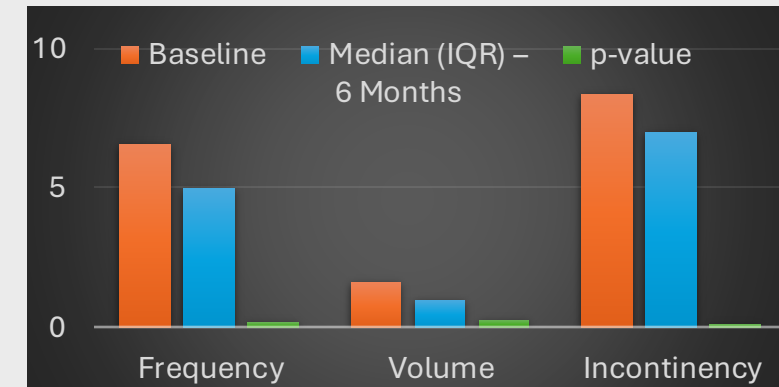
- Primary goal was to evaluate the safety and preliminary efficacy of autologous adipose-derived MSC therapy for using a non-cultural stromal vascular (SVF) approach.

Methodology:

- A pilot study on patients with SUI
- 5 patients
- Mean age 61.2 years (range: 51-67)
- Injection was done in external urethral sphincter under ultrasound guidance
- ICIQ-FLUTS questionnaire was completed
- Adipose-derived mesenchymal stem cells (MSCs) were isolated from abdominal subcutaneous adipose tissue using an enzymatic digestion protocol.

Results:

Chart: Comparison of ICIQ Subscales at Before intervention and 6-Months Post- intervention



- Overall, no statistically significant changes were observed in any subscale over the six-month follow-up period ($p > 0.05$).
- No serious adverse effects such as infection, hematoma, urinary retention, and allergic reactions
- Mild injection site discomfort for 48 hours or urgency up to 1 week post-operatively.

Conclusion:

- Safety was confirmed
- No significant improvement
- Feasible practical approach