PEYRONIE'S DISEASE: PATIENT SATISFACTION POST PLAQUE EXCISION WITH DERMAL GRAFTING

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RESEARCH QUESTION

This project aims to address the question, "In men with Peyronie's disease, does plaque excision with autologous dermal grafting with or without tunica plication provide superior results to tunica plication alone?"

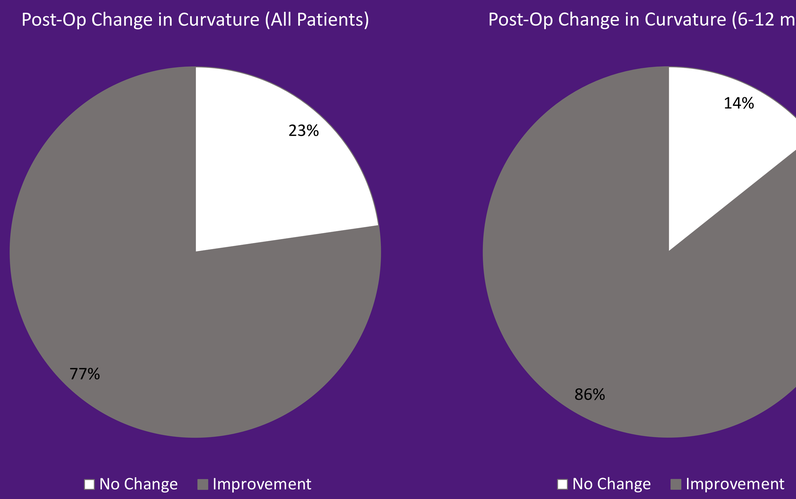
BACKGROUND

Peyronie's Disease is an acquired disorder of the penis that results in penile deformity, pain, mass, and in some, erectile dysfunction. Severe fibrosis in Peyronie's Disease can be treated with surgery. Two common surgical methods, plaque excision and tunica plication, have been shown to successfully straighten the penile curvature associated with Peyronie's disease. It has been suggested that the risk of worsening erectile dysfunction is greater with plaque excision than with the plication surgery. The association between erectile dysfunction and either surgical technique remains unclear. Therefore, this misconception that plaque excision with dermal grafting is associated with a greater risk of worsening erectile dysfunction is misleading and potentially hinders patient care. Although there are other non-surgical options for treatment, many of which aim to reduce symptoms, surgery provides a cure for Peyronie's disease by correcting curvature and, of great importance, increasing the patient's self-confidence. The primary focus of this research aimed to investigate these claims and measure the effectiveness of plaque excision with dermal grafting surgery.

METHODS

Patient satisfaction was assessed with the outcome of surgery regarding erectile dysfunction, penile curvature, and perception of a successful reconstructive penile surgery. Under the direction of Dr. Charles L. Secrest, and in accordance with Baylor Scott and White Institutional Review Board, information from patient charts regarding patient satisfaction, penile curvature, and erectile dysfunction pre- and post-surgery was collected and analyzed using statistical analysis.

Plaque excision with dermal grafting is an effective surgical management method to straighten penile curvature and improve patient satisfaction in Peyronie's Disease. The data in this study demonstrates how plaque excision with grafting leads to patients who are satisfied with their results and restored sexual health.



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RESULTS

Twenty-three percent of the sample experienced no change in curvature and 77% experienced an improvement in curvature. No patients experienced an increase in curvature. With regard to the Sexual Health Inventory in Men (SHIM) questionnaire scores: whereas there was a small positive mean increase over time, this increase was not statistically significant. The paired-sample t-test comparing the pretest numeric curvature scores to their posttest numeric curvature scores showed a difference that was negative and significant, $t(19) = 8.12$, $p<.001$. The effect size for this mean difference was large, $d=1.80$. This means the sample experienced a statistically significant decrease in curvature from pre- to post-operation.

FUTURE DIRECTIONS

Our research positively contributes to a limited body of literature and will advance this area of urology. We anticipate this research will challenge existing assumptions and will straighten out any uncertainty regarding the efficacy of plaque excision with grafting. We foresee additional research being conducted based on this study and hope others will feel encouraged to consider this surgery as a viable option for patients, especially those with severe and extensive disease. As Dr. Secrest continues to perform this surgery on new patients, He and I will collect further data on additional variables in order to increase the significance of future studies. For example, further research may include doppler ultrasound results, other graft materials, and different patient satisfaction measures.

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