Management of gynecomastia-changes in psychological aspects after surgery-a systematic review

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Management of gynecomastia – changes in psychological aspects after surgery

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Department of Plastic and Reconstructive Surgery, Odense University Hospital

Introduction:
Gynecomastia is the benign enlargement of glandular breast tissue in men. It is usually caused by increased estrogen activity, decreased testosterone activity, or the use of numerous medications (1). It usually debuts during adolescence and is reported in up to 65% of the male population (2,3).

While the cause of gynecomastia has been identified, treatment usually involves either medical or surgical intervention. Regarding surgical treatment, there are many different techniques, most of which are consisting of liposuction, glandular excision or a combination of both. Surgical treatment for gynecomastia is generally not recommended for the first year of symptoms, especially as there is a chance of spontaneous resolution of the problem (3,4).

Though surgery may be effective in correcting the cosmetic aspect of gynecomastia, research has indicated that the psychological impact may be significant in these patients.

In 1961 Schonfeld published an article suggesting that gynecomastia’s impact on a man’s life warranted treatment. During the last years, several papers have been published on the subject, but to date there is, arguably, a need for a more multifaceted evaluation. During the last years, several papers have been published on the subject, but to date there is, arguably, a need for a more multifaceted evaluation. During the last years, several papers have been published on the subject, but to date there is, arguably, a need for a more multifaceted evaluation. During the last years, several papers have been published on the subject, but to date there is, arguably, a need for a more multifaceted evaluation.

A comprehensive review published in 2015, by Fagerlund et al. (10), concluded that a good questionnaire design would minimise bias and maximise precision in the estimates of treatment effects. "Intermediate risk of bias" was given to those who were not specifically validated assessment tool SF-36 has been given the most domains evaluated were selection bias, performance bias, detection bias, attrition bias, reporting bias and other bias. Despite the research regarding the psychological aspects of surgical treatment, there is limited and the quality is very low. Caution should be taken when interpreting the findings of our included articles, will therefore not have not stated if the included population is a selected one.


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Conclusions:
Surgical treatment of gynecomastia seems to be beneficial for several psychological domains. Among these are vitality, emotional discomfort, limitations due to physical aspects and limitations due to pain. There is a trend of improvement in Quality of Life and psychological health. The results are, however, based on data for a patient population in their mid-twenties and are therefore not representative of all men affected by gynecomastia.

The quality of evidence is very low and future studies examining the impact of the surgical intervention for gynecomastia on psychological outcomes are greatly needed. These studies should include data from older individuals affected by gynecomastia and utilise valid tools of psychological measurement in order to better quantify the effect. The older patients affected by the disease have been overlooked in the current research. More data on this subject could improve the pre-operative evaluation of these patients and help identify the patients that will benefit from treatment.


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Material and methods:
Study selection and data collection process

A database search was performed using Medline, Ovid, Cochrane Library and Embase. The last search was performed on 2017. Reference lists of identified studies and previously published reviews were screened for relevant articles. There was no language restriction and the search was supplemented by hand searching. Articles in English were included in the review.

Results/Conclusion: Several of the included studies reported improvement in quality of life and several psychological domains after surgical treatment for gynecomastia. Among these domains, are; vitality, emotional discomfort, limitations due to physical aspects and limitations due to pain. Impact of surgical treatment for gynecomastia seems to be beneficial for several psychological domains. The current level of evidence on this subject is very low and future studies, examining the impact of the surgical intervention for gynecomastia on psychological outcomes, are greatly needed. More data on this subject could improve the pre-operative evaluation of these patients and help identify the patient that will benefit from treatment.


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ABSTRACT

AIM: To investigate the effect of surgical treatment for gynecomastia on psychological domains.

Introduction:
Gynecomastia affects up to two-thirds of the male population. For many patients the psychological impact of the disease is substantial. Surgical treatment is indicated when medical treatments fail. Until now, most published research on the subject has focused on how effective surgical treatment is on correcting the cosmetic appearance of the breast. Little is known about the effect of surgical treatment on the psychological aspects of the disease. The aim of this review was to identify the psychological domains affected by the disease and the effect of surgical treatment on these.


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Materials and methods:
A systematic search of the published literature was performed. All studies on the subject were evaluated for inclusion and six studies were included in the review.

Results:
Several of the included studies reported improvement in quality of life and several psychological domains after surgical treatment for gynecomastia. Among these domains, are; vitality, emotional discomfort, limitations due to physical aspects and limitations due to pain. Impact of surgical treatment for gynecomastia seems to be beneficial for several psychological domains. The current level of evidence on this subject is very low and future studies, examining the impact of the surgical intervention for gynecomastia on psychological outcomes, are greatly needed. More data on this subject could improve the pre-operative evaluation of these patients and help identify the patient that will benefit from treatment.


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Table 1

<table>
<thead>
<tr>
<th>Studies</th>
<th>Design</th>
<th>No. of cases</th>
<th>Characteristics</th>
<th>Type of psychological analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Davanco et al 2017</td>
<td>Case-control</td>
<td>47</td>
<td>All grades</td>
<td>Functional capacity, limitations due to physical aspects, vitality, mental health/well-being, personal life assessment after surgery</td>
</tr>
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<td>Fricke et al 2017</td>
<td>Multicentric</td>
<td>All grades</td>
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| Kasielska-Prado et al 2017    | Prospective     | 103         | All grades     | Improvement in quality of life and degree of satisfaction on a visual analogue scale.

Table 2

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</tr>
</tbody>
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Improvements were seen in the following psychological domains:

- **Self-confidence**
- **General health**
- **Quality of Life**
- **Emotional well-being**
- **Physical functioning**
- **Pain**
- **Energy/fatigue**
- **Social functioning**

Conclusions:
Surgical treatment of gynecomastia seems to be beneficial for several psychological domains. Among these are vitality, emotional discomfort, limitations due to physical aspects and limitations due to pain. There is a trend of improvement in Quality of Life and psychological health. The results are, however, based on data for a patient population in their mid-twenties and are therefore not representative of all men affected by gynecomastia.

The quality of evidence is very low and future studies examining the impact of the surgical intervention for gynecomastia on psychological outcomes are greatly needed. These studies should include data from older individuals affected by gynecomastia and utilise valid tools of psychological measurement in order to better quantify the effect. The older patients affected by the disease have been overlooked in the current research. More data on this subject could improve the pre-operative evaluation of these patients and help identify the patient that will benefit from treatment.