

Statement from the Regional HTA Centre of the Western Region in Sweden

Abdominal plastic surgery after massive weight reduction

The Regional Health Technology Assessment Centre (HTA-centrum) of the Western Region in Sweden (Region Västra Götaland, VGR) has the task to make statements on HTA reports carried out in VGR. The statement should summarise the question at issue, level of evidence, efficacy, risks, and economical and ethical aspects of the particular health technology that has been assessed in the report.

Anna Elander, Director of the Department of Plastic Surgery, Sahlgrenska University Hospital requested the present HTA and nominated a working group including Trude Staalesen, resident in the Department of Plastic Surgery, Sahlgrenska University Hospital, Karl Bremer, general surgeon, resident in the Department of Plastic Surgery, Sahlgrenska University Hospital and herself. The participants from the HTA centre were Annika Strandell, Associate professor, Christina Bergh, Professor, Therese Svanberg, librarian SU/S, Yommine Holmberg, librarian SU/S External reviewers: Hans Hedelin, Professor adj, senior consultant, FOU-centrum, Urologkliniken, Kärnsjukhuset, Skövde, and Peter Johansson, Med.dr, senior consultant, Medicinkliniken, NU-sjukvården, Uddevalla have critically appraised the report.

The project lasted during the time period September 2- December 9, 2009.
Last search updated in October 2009.

Question at issue:

Does abdominoplasty or panniculectomy improve quality of life, respiratory function and/or reduce back pain in women and men with abdominal tissue excess?

PICO (Patient, Intervention, Comparison, Outcome)

- P1: Women and men at all ages with abdominal tissue excess after massive weight loss
- P2: Women with abdominal tissue excess after childbirth
- I: Full/partial abdominoplasty, panniculectomy, beltlipectomy
- C: No surgical intervention
- O: Quality of life, respiratory function, back pain, complications

Summary of the health technology assessment:

Method and patient group:

Massive weight loss or pregnancy often results in permanent abdominal tissue excess consisting of skin and subcutaneous fat. A hanging panniculus may cause various physiological and psychological problems leading to reduced quality of life. Available surgical procedures are panniculectomy, full/partial abdominoplasty and beltlipectomy.

Studied benefits and risks for patients of the new health technology:

One small non-randomized controlled study showed a positive effect on some of the variables measuring quality of life. There were no controlled studies on respiratory function or back pain. In 12 case series, including a total of almost 2700 patients, minor complications such as hematoma, seroma, dehiscence, infection and necrosis, occurred commonly (25-50%). Major complications, mainly thromboembolism were described in 1-4%.

Level of evidence:

The scientific level of evidence of a positive effect of surgical treatment of abdominal tissue excess is very low (GRADE ⊕○○○) concerning quality of life. Other outcomes have not been studied in a controlled manner.

Ethical questions:

- One could consider it unethical to perform bariatric surgery without removing the resulting abdominal tissue excess.
- Abdominoplasty can strengthen an individual's human dignity by normalisation of his or her "abnormal" appearance. On the other hand, offering these procedures states the "normal appearance" which might influence the human value in a negative way.
- Is an increase in operations of tissue excess motivated in spite of insufficient scientific evidence of positive outcome?

Economical aspects:

Mean cost per patient was 39 000 SEK in 2008, resulting in 3,3 million SEK per year in VGR. If the increased demand of bariatric surgery could be met and 30% of those had abdominoplasties, the yearly cost would be estimated at 14 million SEK.

Concluding remarks

Surgery is the only available method to treat patients with abdominal tissue excess. The conclusion that the patients post-operatively describe an increase in quality of life, is based on very low scientific evidence. Minor complications are very common after this type of surgery. A raised demand of abdominoplasties is expected due to an increase in bariatric surgery.

On behalf of HTA-centrum Göteborg, Sweden, 2009-12-09

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