

RADIOLOGICAL EXAMINATION AT THE STAGES OF SURGICAL TREATMENT OF THE CONSEQUENCES OF THE SOFT TISSUE AUGMENTATION WITH VASELINE OIL FOR AESTHETIC PURPOSES

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Introduction

- **Dermal fillers are among the most popular aesthetic procedures because they carry immediate results, very few risks and little recovery**
- **Despite the regulations governing the provision of aesthetic non-surgical medical services, the number of patients affected by the augmentation of vaseline oil into soft tissues to correct the shape of organs and soft tissues has increased**



Objective

- development of an algorithm for radiological examination of patients at the stages of surgical correction of the consequences of the augmentation with vaseline oil into soft tissues for aesthetic purposes

Materials and methods

- In a retrospective study, the results of the examination and surgical treatment of 17 women were evaluated. The patients were treated at various times with the consequences of the augmentation with vaseline oil in mammary glands, buttocks and shins



Clinical manifestations of introduction of vaseline oil:

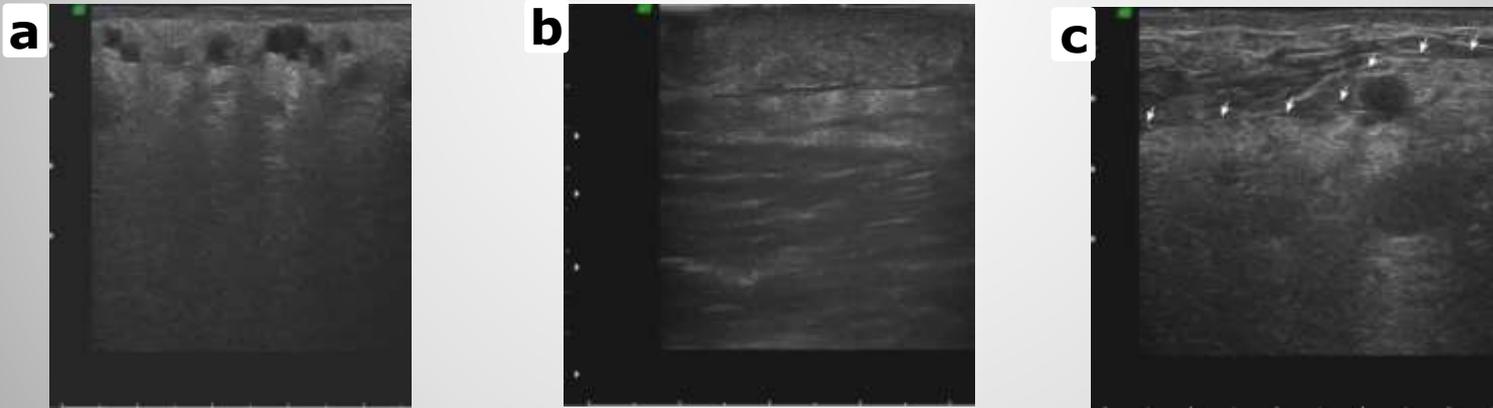
- a - the mammary glands of the patient are represented by single conglomerates of oleogranuli on both sides with changes in the skin;**
- b - the buttocks of the patient represented by introduced of vaseline oil with the changes in the skin;**
- c - trophic ulcers formed in the migration zone, in the lower third of the leg and on the foot.**

Materials and methods

- There were 11 (64.7%) patients with vaseline oil introduced into one region, into two regions – 5 (29.4%), and 1 (5.9%) woman into three regions.
- The migration of vaseline oil to adjacent anatomical areas was observed in 13 out of 17 (76.5%) patients.
- All patients underwent ultrasound, MSCT, and/or MRI at the stages of surgical treatment.

Results

- Ultrasound is the easiest to perform, however, an effective method for diagnosing complications after soft tissues augmentation. And it is effective when searching for individual fat fragments during surgery and evaluating the intervention area around the perimeter. In the postoperative period, the ultrasound revealed limited fluid accumulations ranging in size from 12 to 36x47 mm.



Ultrasound images of various options for the defeat of subcutaneous fat:

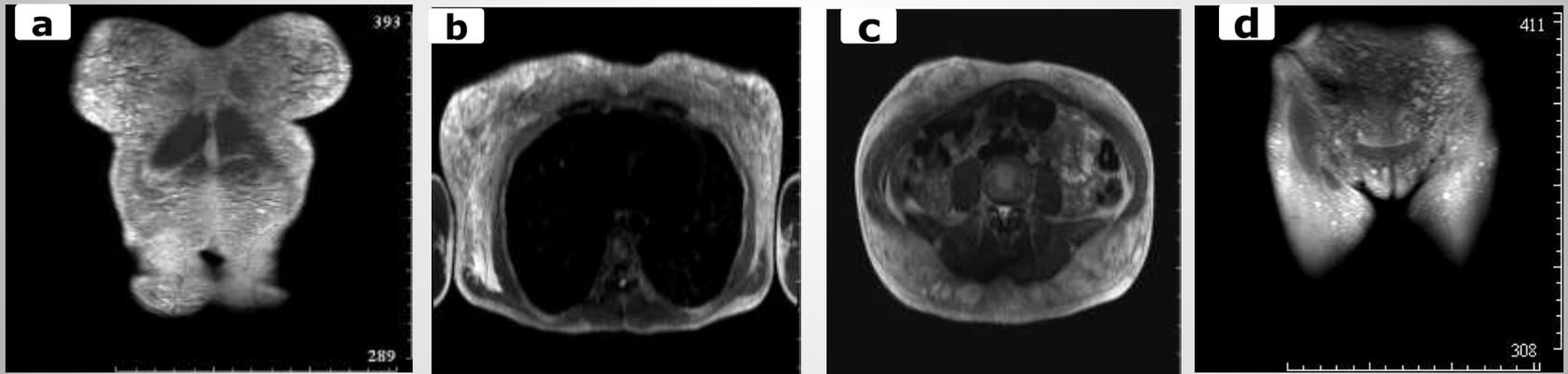
a - anechogenic heleomas;

b - infiltrative ("drainage") tissue damage;

c - combination of tissue infiltration and heleomas (indicated by arrows)

Results

- The MR Imaging is carried out without radiation exposure and the introduction of a contrast agent and allows you to determine the full volume of soft tissue damage, as well as the presence of fibrous tissue, in the mode without fat suppression.



MR image of the lesion of subcutaneous fat in T2 WI:

a - the front surface of the chest and abdominal walls;

b - at the level of the chest cavity;

c - at the level of the abdominal cavity;

d - at the level of meso- and hypogastrium, the front and inner surfaces of the thighs, external genitalia

Results

- **MSCT and MRI studies can identify oleogranulomas and determine the volume of soft tissue damage.**
- **If it is possible to choose the method of radiological investigation, preference should be given to MRI.**

Results

- In 11 cases, the clusters regressed independently during ultrasound monitoring, and in 6 cases, it was considered appropriate to evacuate the contents under ultrasound control. Good and satisfactory results were obtained in 6 patients (MRI data and visual effect), and interventions, mainly of a reconstructive nature, are expected in 11 patients.

Results

a

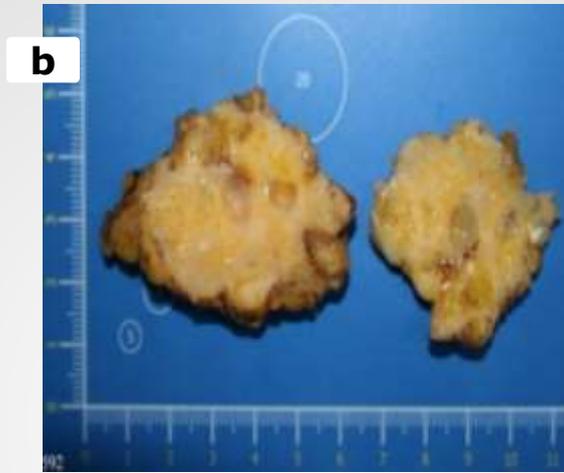
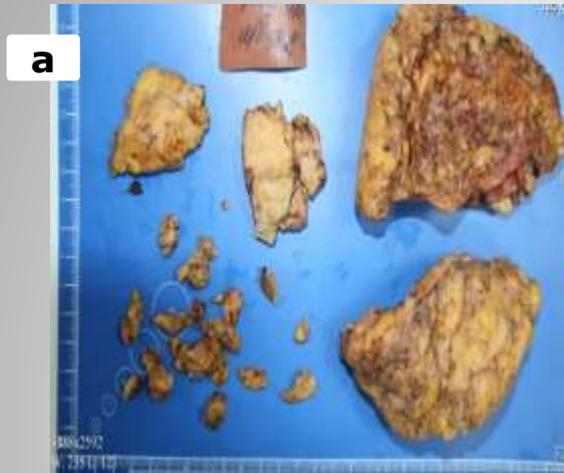


b

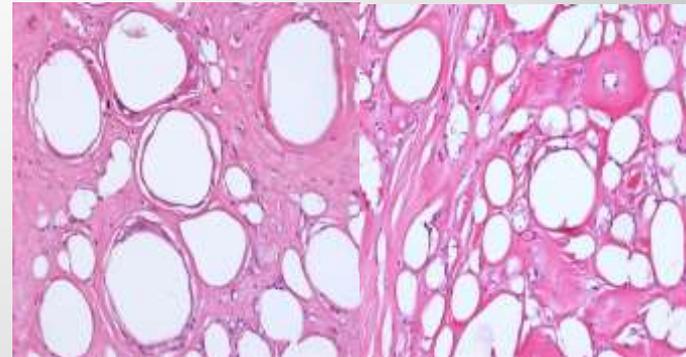


Patient after multi-stage surgical treatment:
a - after subcutaneous mastectomy and removal of fibrotic tissue in the migration zones on the chest and abdominal walls;
b - after breast reconstruction

Results



**Remote conglomerates of fibrous tissue:
a - general view;
b - in section, different diameters cavities
containing vaseline oil**



**Dissected soft tissues after the introduction
of vaseline oil (*), hematoxylin and eosin, 200**

Conclusion

- The difficulties and multi-stage surgical treatment in patients after soft tissue augmentation with vaseline oil are associated with a large volume of tissue damage with a violation of their trophic function, the migration of vaseline oil to adjacent anatomical areas, the inability to eliminate the lesion and simultaneous reconstruction.
- MRI makes it possible to determine the extent of the lesion at all stages of surgical treatment, ultrasound is an important pre / intraoperative navigation during surgical treatment, and also allows postoperative management of patients.

Thank you for your time!