بسم الله الرحمن الرحيم

MONA MAGHRABY

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

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جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

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Comparative Study between Inverted U Shaped Incision & Round Block Technique in Management of Grade II & III Gynecomastia

Thesis

Submitted for Partial Fulfillment of Master Degree in General Surgery

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2021

سورة البقرة الآية: ٣٢

Acknowledgment

First and foremost, I would like to acknowledge and extend my heartfelt gratitude and deep thanks to Allah, who made all things possible and then to the following persons who helped me for completion of this essay.

I would like to express and offer my deepest thanks, grateful appreciation and my gratitude to Prof. Dr. Ayman Ahmed Talaat, Professor of General Surgery, Faculty of Medicine, Ain Shams University, for his keen guidance, kind supervision and valuable advice.

I would like to express my thanks to Dr. Karim Fahmy Abdel-Moaty, Assistant Professor of General Surgery, Faculty of Medicine, Ain Shams University, for his effective, unlimited help, support and valuable advices.

Last, but not least. I thank my Family, specially my Parents and my Friends, for pushing me forward in every step of my life.

Omar Abdelrahman

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List of Abbreviations

Abb.	Full term
FSH	*Follicle stimulating hormone*
GnRH	*Gonadotropin- releasing hormone*
HCG	*Human chorionic gonadotropin*
HIV	*Human immune virus*
IMF	*Infra Mammary fold*
LAL	*Laser-assisted liposuction*
LH	*luteinizing hormone*
NAC	*The nipple-areola complex*
ND: YAG	*Neodymium-Doped, Yttrium Aluminium Garnet*
PAL	*Power-assisted liposuction*
SAL	*suction-assisted liposuction*
UAL	*Ultrasound-assisted liposuction*

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INTRODUCTION

Gynecomastia is defined clinically as generalized enlargement of the male breast tissue, with the presence of a rubbery or firm mass extending concentrically and symmetrically from the nipple, accompanied by histopathological benign proliferation of the glandular male breast tissue. It usually occurs bilaterally and is the most common breast condition in males ***(Carlson, 2011).*** It may be idiopathic or due to drugs or pathological condition accompanied by absolute excess of estrogen and decrease in circulating androgens. In addition, increased use of anabolic steroids or environmental contamination with xenoestrogens or estrogen-like substances may stimulate glandular proliferation in male breast tissue ***(Barros et al., 2012).***

However, a related condition, pseudogynecomastia, manifests as fat deposition without glandular proliferation and occurs most frequently in obese men, where the number of patients with pseudogynecomastia is increasing. In mild cases, simple reassurance coupled with advice on diet and exercise may be sufficient. However, in more severe cases, medical and/or surgical intervention are required ***(Barros et al., 2012).***

Various classification schemes of gynecomastia have been proposed, incorporating evaluations of the appearance of

the breast, severity, and the composition ratio between fat and glandular tissue ***(Waltho et al., 2017).***

The most frequently used classification is based on the tissue components involved in gynecomastia and distinguishes three types.

- True gynecomastia, when only glandular tissue is the cause of breast enlargement,
- Pseudogynecomastia, which refers to chest lipodystrophy,
- Mixed gynecomastia, which corresponds to a breast with hypertrophy of both fat and glandular parenchyma ***(Simon et al., 1973).***

Alternatively, according to the breast size and redundant skin, the grade of severity of gynecomastia can be assessed using the Simon scale ***(Simon et al., 1973).***

Depending on morphology and volume, gynecomastia is classified according to Simon (1973) in four different groups (it is the most common classification). ***(Johnson et al., 2009).***

The surgical technique used depends on the degree of the gynecomastia and the distribution and proportion of the different breast components (fat, parenchyma and looseness of the skin envelope). The most commonly used technique is subcutaneous

mastectomy which involves direct resection of the glandular tissue using a peri-areolar or trans-areolar approach, with or without liposuction. More extensive surgery, including skin resection, is required for patients with marked gynecomastia and those who develop excessive sagging of the breast tissue (with weight loss). Liposuction alone may be sufficient, if breast enlargement is purely due to excess fatty tissue without substantial glandular hypertrophy ***(Bailey et al., 2016).***

Regardless of the type of gyencomastia, if it persists for more than a year the breast tissue will become more fibrous and resistant to medical treatment. At this stage, resection is the mainstay of management ***(Lee et al., 2014).***