

KELOIDS: DIFFERENT LINES OF THERAPY

Essay

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By

Hala Fakhry Abdalla

M.B. B.Ch.

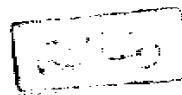


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Supervisors

H. F.

Prof. Dr.



Mohamed Hassan El-Hefnawi

Professor of Dermatology & Veneriology
Faculty of Medicine
Ain Shams University

59773

Dr.

Adel Ahmed Halim Imam

Assist. Professor of Dermatology & Veneriology
Faculty of Medicine
Ain Shams University

Signature

Faculty of Medicine
Ain Shams University

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Acknowledgment

In the beginning, thanks to God, who helped me complete this study.

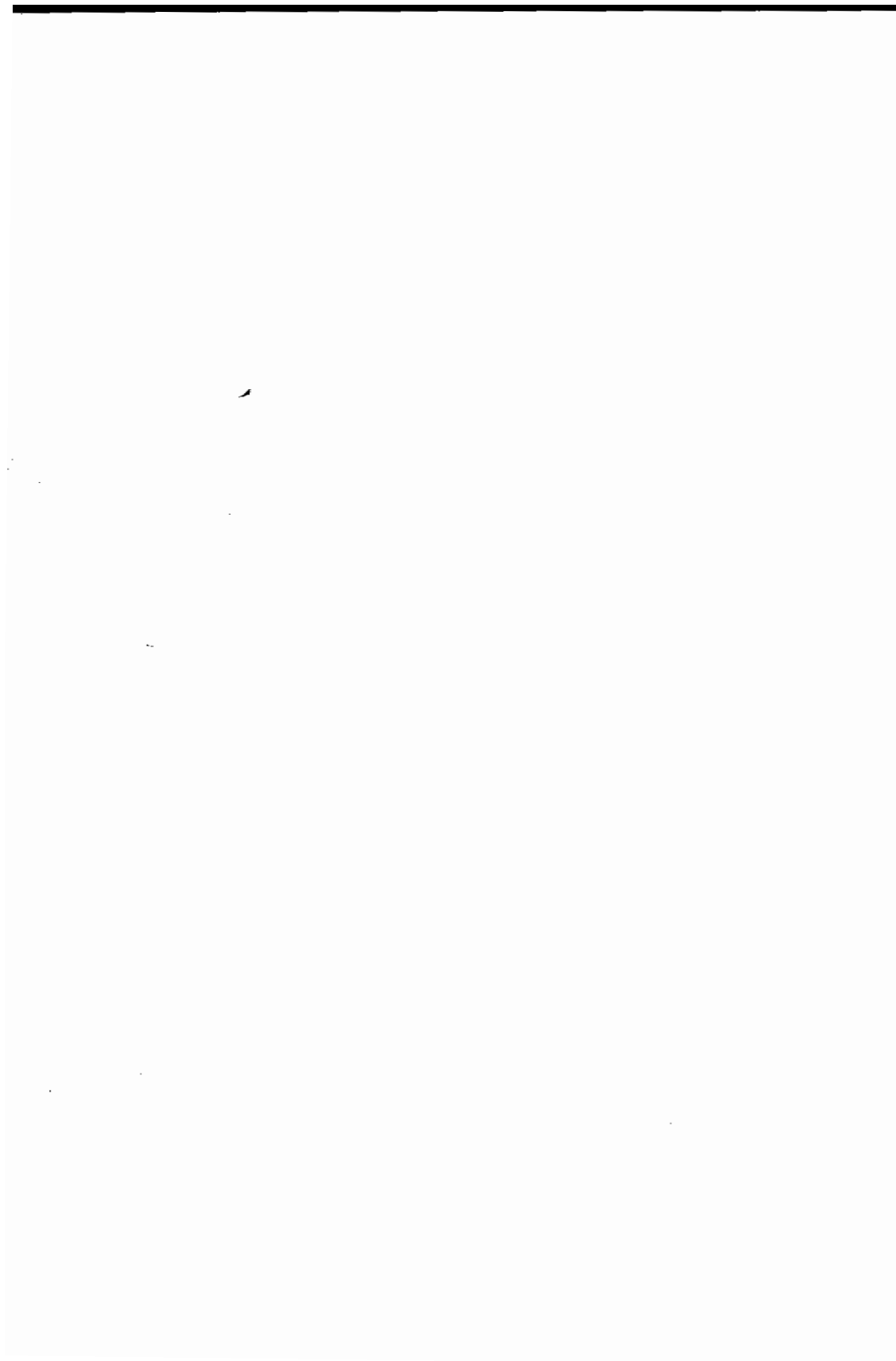
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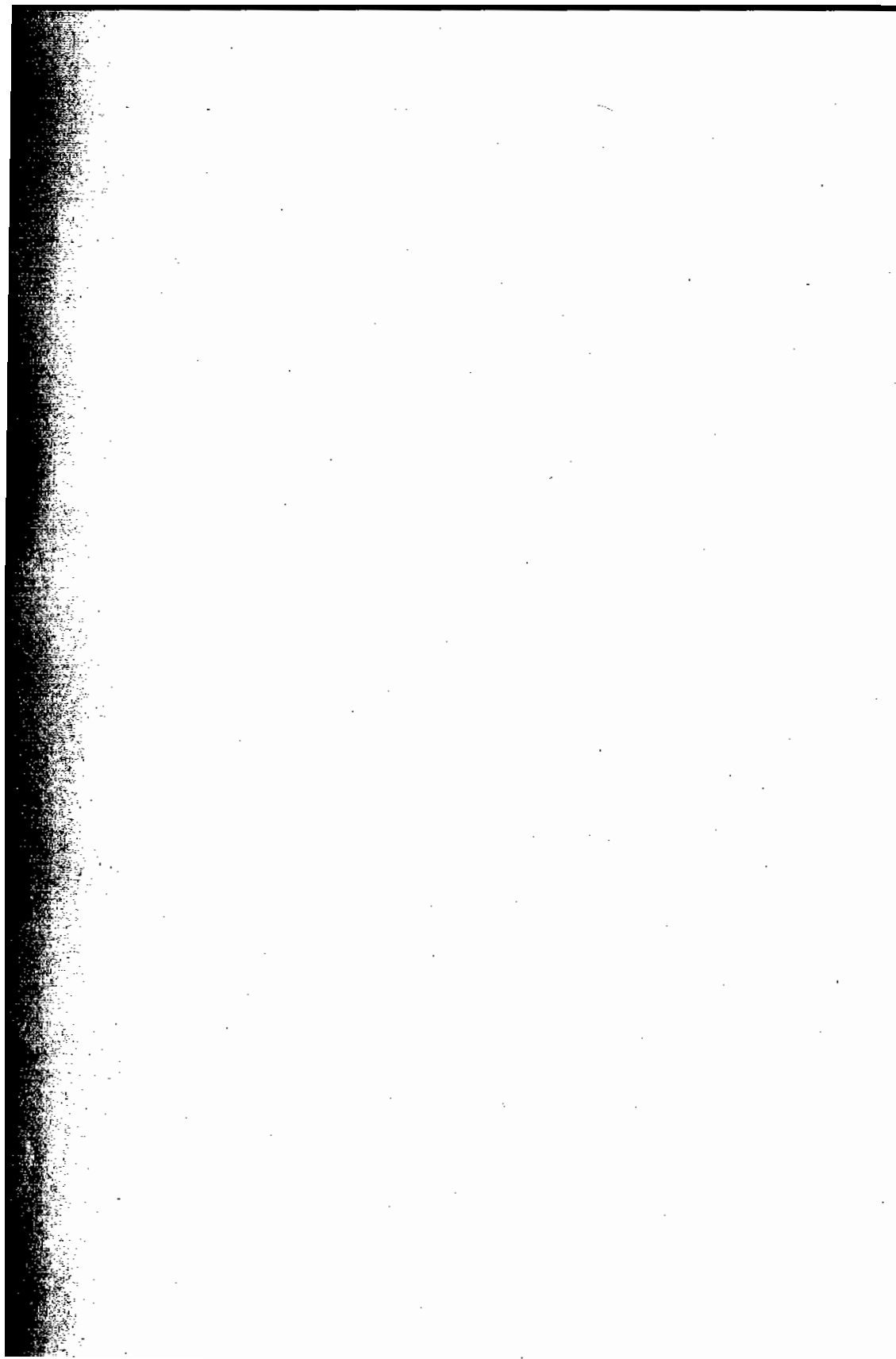
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Introduction



INTRODUCTION

Keloids are benign fibrous growths occurring in certain predisposed individuals and which usually result from an excessive tissue response to skin trauma [Nemeth, 1993].

Keloid and hypertrophic scar are two types of excessive scarring. These two types are often confused and the titles keloid and hypertrophic scar are often used interchangeably in describing excessive scarring [Murray, 1994].

Centuries ago, keloids were first described in the smith papyrus which describes surgical techniques used in Egypt around 1700 BC. [Breasted, 1930].

Patients with keloid with treatment mainly for cosmetic reasons; pruritus, pain and restriction of movement by lesions close to joints [Zouboulis et al., 1993].

Keloids have been treated by various modalities but therapy selection should be carefully matched to the individual and the abnormal wound response to obtain the best possible result [Klumpar et al., 1994].

Established ways to treat keloids remain surgery and intralesional corticosteroids. Newer and more innovative adjunctive therapies are silastic gel sheeting, intralesional interferon gamma and electrical stimulation.

The aim of the study:

The aim of this study is to define keloid, review the possible keloid pathogenesis and shed light on different methods of treatment.



Review of Literature

The clinical subsets of keloid may be divided into those causing cosmetic concerns, such as earlobe keloids, and those causing significant symptoms such as the keloids that follow sternotomy and thoracotomy. The highly variable clinical manifestations of keloids reflect the variation in antecedent trauma [Murray, 1994].

The morphologic and temporal appearance of keloids are variable, their location and configuration but not their size appear predetermined by the site of skin trauma [Nemeth, 1993].

Keloid on the ears tends to be pedunculated whereas those on the upper trunk are generally broad, raised and may have irregular claw-like projections [Onwukwe, 1978].

There are some lesions which mimic keloidal growth clinically such as dermatofibro-sarcoma protuberans, leiomyosarcoma and other sarcomas. Infectious lesions such as lupus vulgaris or blastomycosis (Lobo's disease) may also resemble keloids and need to be excluded by histopathology and culture. In whites, the superficial (fascial) fibromatoses also need to be considered in the differential diagnosis [Nemeth, 1993].

Areas of predilection for keloid growth are the earlobes, upper trunk, and extremities. In black Americans, the deltoid, presternum and upper back were reported as most commonly affected [Ketchum et al., 1974]. About half of all keloids occurred in the shoulder region and the lower leg in an African study with the central chest the next most common location [Oluwasanmi, 1974].

Anatomic sites with infrequent incidence of keloid formation include eyelids, genitalia, palms, soles, cornea and mucous membranes [Cosman et al., 1961].

Symptoms of keloids are highly variable in that some lesions may be particularly painful or pruritic while others are asymptomatic. Often intense pruritus accompanies increased keloidal growth. Occasionally large keloids may spontaneously drain necrotic material and become infected [Nemeth, 1993].

The overlying epidermis is smooth, glossy and thinned from pressure, the early growing lesion is red and tender and has the consistency of rubber, it is often surrounded by an erythematous halo and the keloid may be telangiectatic and the keloid often sends out claw-like ("cheloid") prolongations [Lee, 1982].

Sometimes keloids are as tiny as pinhead or may be very large pedunculated. Lesions are often linear and the surface may be larger than the base so that the edges are overhanging [Murray et al., 1981].

Keloids have been treated by various modalities because their cause is unknown. After simple excision or cryotherapy recurrence rates approach 100% [Order and Donaldson, 1990].

Murray et al. [1984] observed significantly higher keloid recurrence rates for lesions originating in infected sites, this was the case in keloids developing after acne, those forming after surgical wound infection and in those developing from infected insect bites.

Keloids tended to recur at a higher rate in patients with a positive family history. Anatomic location had no significant effect on treatment response. Similarly, keloid size was not correlated with recurrence [Klumpar et al., 1994].

Epidemiology

Keloids and hypertrophic scars form in all races. The incidence of keloids is higher in blacks and in individuals with greater pigment production. White patients are less susceptible to keloid formation with a relative prevalence ratio (White / Black) estimated between 1:3.5 and 1:15 [Ketchum, 1974].

The precise incidence of keloids is unknown, this lack of information is the result of demographic variables, difficulty in distinguishing keloids from hypertrophic scars, variability in the types of trauma leading to a keloidal response, and the broad time frame during which keloids form or reccur in genetically predisposed individuals [Nemeth, 1993].

An incidence of keloids between 4.5 and 16 percent has been reported in a predominantly black and Hispanic population [Cosman et al., 1961] and up to 16% in random samplings of black Africans [Oluwasanmi, 1974].

In Hawaii, keloids were found to be five times more common in people of Japanese descent and three times more common in individuals of Chinese descent than among whites, Chinese form keloids more frequently than Indians and Malaysians. Keloids have never been reported in albinos.

[Alhady and Sivanan, 1969].

Most keloids occur between the ages of 10 and 30 but people of all ages may develop keloids [Cosman et al., 1961]. A case of congenital keloids has been reported by Fard and Wedgerv [1990] as an umbilical keloid.

Older patients undergoing surgical procedures such as sternotomy or breast biopsy have also been reported to develop keloids [Murray, 1994].

Children have greater tendency to form and reform keloids than do adults and sometimes the keloid tendency diminishes after puberty [Oluwasanmi, 1974].

Keloids affect men and women in approximately equal numbers as the incidence and median age of onset between sexes are not significantly different [Ketchum et al., 1994].