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# The Pathology of Skin Tumours in Mosul Hospital Laboratories one year Survey

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**ABSTRACT**

**This is a clinic pathological survey of 51 cases of Skin tumours which were received in histopathological laboratories at Al-Zahrawi and Saddam Hospitals during a one year training period from June 1993 to June 1994. 36 of the cases showed malignant tumours and 15 cases had benign tumours. The malignant tumours comprise 23 cases of Basal cell carcinoma, 10 cases of Squamous cell carcinoma, 2 cases of Malignant melanoma and one case of Hidradenocarcinoma. The benign tumours comprise 5 cases of Basal cell papilloma, 4 Melanocytic-Nevi, 2 Keratoacanthomas, 2 pilartumours and one Squamous cell papilloma and one Eccrineporoma.**

**Keywords: Basal cell carcinoma, Basal cell papilloma, Malignant melanoma, Skin tumours. Squamous cell carcinoma.**

## 1. INTRODUCTION

Skin biopsies form an important part of any histopathological practice in general hospitals. This reflects the importance of the skin as a vast organ which is almost continuously exposed to countless environmental carcinogenic agents rendering it liable to develop varieties of tumours more numerous than those produced by any other organ in the body, added to the large number of diseases and other no neoplastic conditions[1]. On the other hand tumours of the skin can be treated effectively through early detection and excision while similar tumours in other sites can prove fatal[2].

In Iraq cancer of the skin is fourth commonest cancer in order of incidence preceded by Breast, Bronchus, and urinary bladder while in Mosul it ranks fifth[3].

This brief analysis is an attempt to establish the yield of skin tumours to histopathological laboratories throughout a one year period during my training in those laboratories.

The results are compared with other studies.

## 2. MATERIALS AND METHODS

Mosul Hospitals are served by two main histopathological laboratories. The first is Al-Zahrawi laboratory which is situated in Al-Zahrawi Hospital. It forms the depot for biopsies from Al-Zahrawi Hospital, Al-Batool Hospital, IbnSina Hospital and Dermatological consultation-Clinic. The second is Saddam laboratory which serves Saddam Hospital in addition to Al-Kamalyia Hospital. From June 1993 to December 1993 to complete my post graduate study were doing my training in Al-Zahrawi Hospital and I completed the training year in Saddam Hospital, biopsies whether incisional or excisional were received fixed in 10% formalin. They were processed by an Automatic Tissue processor, embedded in paraffin, cut into 4mm sections and stained by Hematoxylin and Eosin. The clinical data relevant to the biopsies were received in an accompanying request form Assessment and final reporting of the biopsies was performed by consultant pathologists from Mosul Medical College on aroutine basis. Primary assessment of all cases was done by myself.

## 3. RESULTS

From January to December 1993 Al-Zahrawi laboratory received 1937 biopsies with 105 skin biopsies (5.4%). In Saddam Hospital the histopathological laboratory received during the period from January to June 1994, 300 biopsies

in total with 25 skin biopsies (8.3%). This makes the ratio of skin biopsies to all others as (5.8%). Malignant tumours account for 36 cases of all skin biopsies (27.7%) with 15 benign tumours (11.5%). The rest were of nonneoplastic skin conditions.

**Malignant tumours:** 36 cases were encountered with Male to female ratio 1:1.6 (Figure 1)Summarizes the results.

**Basal cell carcinoma:** this forms the bulk of skin cancer (64%). The age and sex distribution of the cases encountered is presented in (Figure 2).
**Squamous cell carcinoma:** There were 10 cases of squamous cell carcinoma (28%). The age and sex distribution is presented in (Figure 3).
**Others:** (8%)
There were two females with malignant melanoma. Both had the tumour in their lower extremities, and one case of hidradenocarcinoma which was encountered in a male.The site distribution of all cancers is presented in (Table 1).
**Benign tumours:** Only 15 benign tumours were seen in this collection. (Table 2) presents their site distribution and (Figure 4) their histological type and sex distribution.

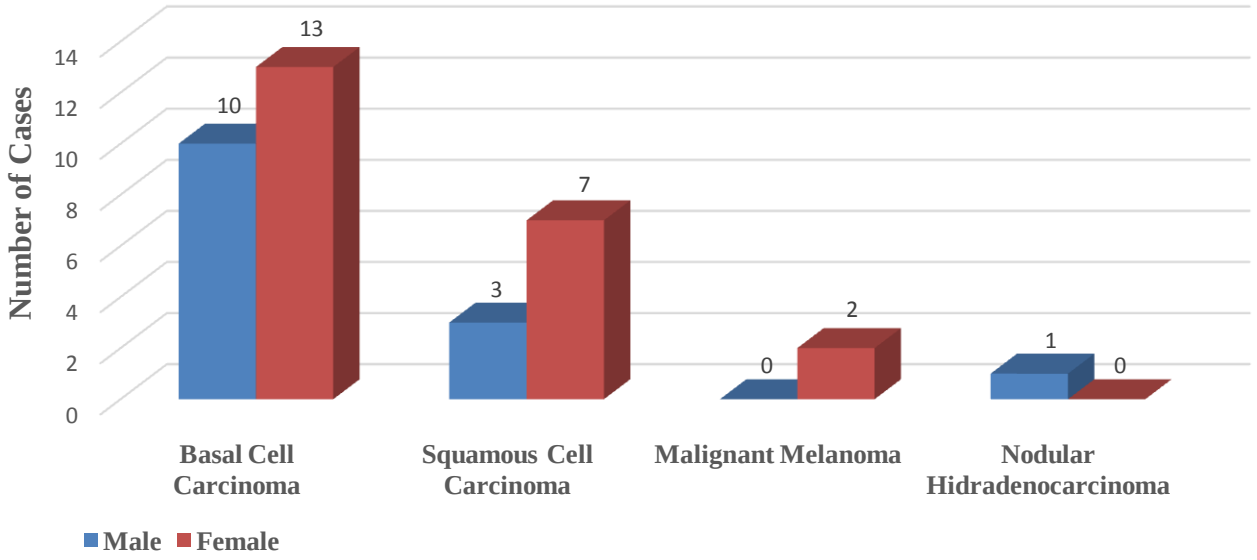
**Table 1: Skin Cancer (Site Distribution by Type of Cancer)**

| Site | Type of Cancer | | | |
|---|---|---|---|---|
| | Basal Cell Carcinoma | Squamous Cell Carcinoma | Malignant Melanoma | Hidradeno-carcinoma |
| Face | 19 | 7 | 0 | 1 |
| Neck | 2 | 0 | 0 | 0 |
| Forefinger | 0 | 1 | 0 | 0 |
| Vulva | 0 | 1 | 0 | 0 |
| Leg | 0 | 1 | 1 | 0 |
| Foot | 0 | 0 | 1 | 0 |
| Unspecified site | 2 | 0 | 0 | 0 |

**Table 2: Benign Skin Tumours (Site Distribution by Type of Tumour)**

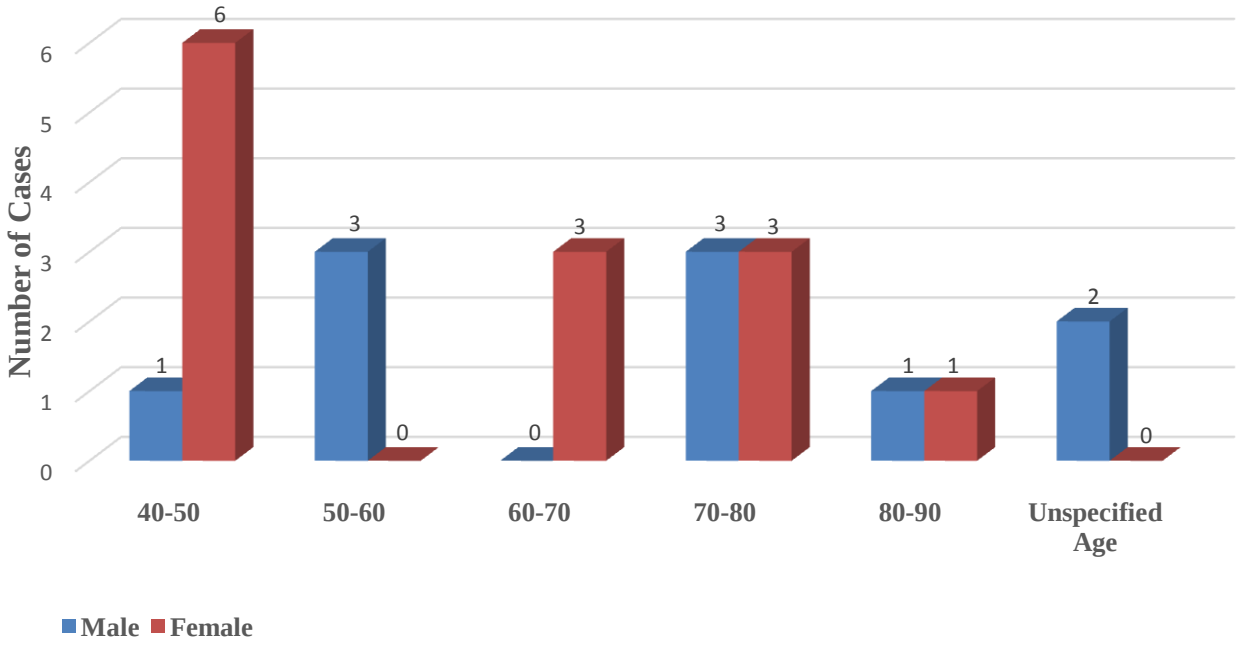
| Type of tumour | Total number of Male(M) &Female(F) | Site of tumour | | | | |
|---|---|---|---|---|---|---|
| | | Scalp | Face | Ear | Leg | Unspecified Site |
| Basal cell papilloma | 5 | 0 | 0 | 2 | 1 | 2 |
| Intradermal Naevus | 3 | 0 | 2 | 0 | 0 | 1 |
| Compound Naevus | 1 | 0 | 0 | 0 | 1 | 0 |
| Keratoacanthoma | 2 | 0 | 2 | 0 | 0 | 0 |
| Pilar Tumour | 2 | 2 | 0 | 0 | 0 | 0 |
| Squamous cell Papilloma | 1 | 0 | 0 | 0 | 0 | 1 |
| Eccrine-poroma | 1 | 0 | 0 | 0 | 0 | 1 |

Figure 1



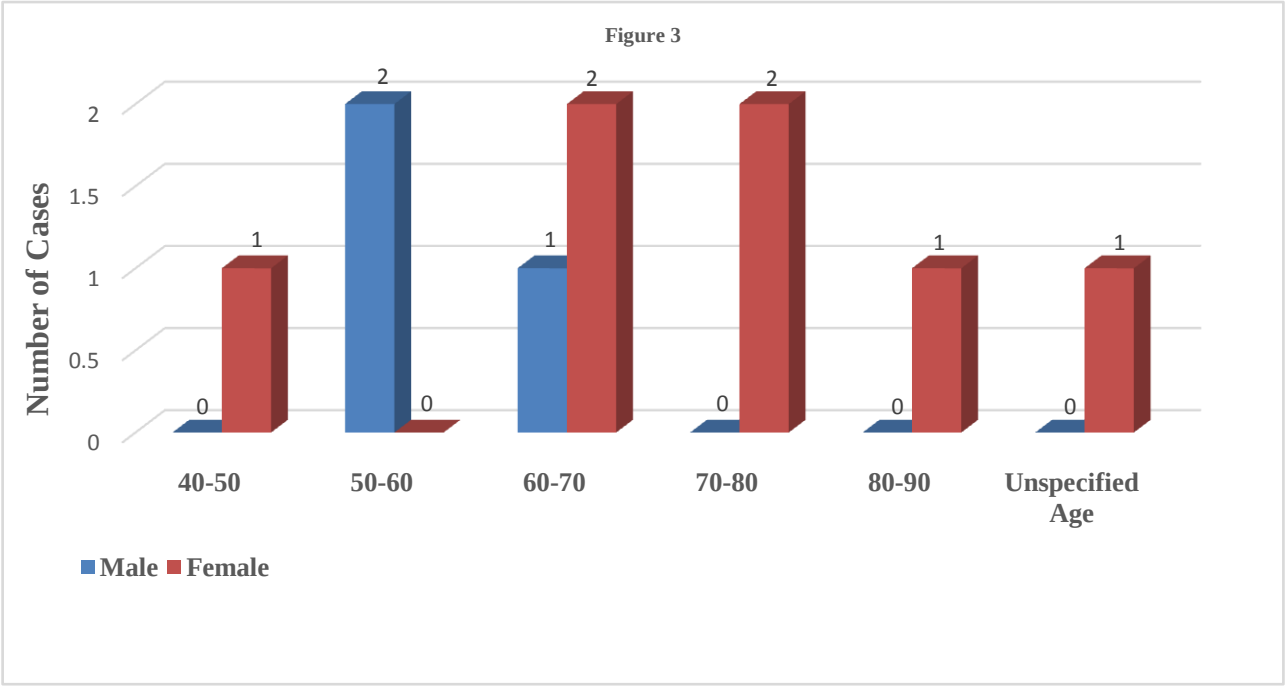

**Skin Cancer (Histological Type by Sex)**

Figure 2



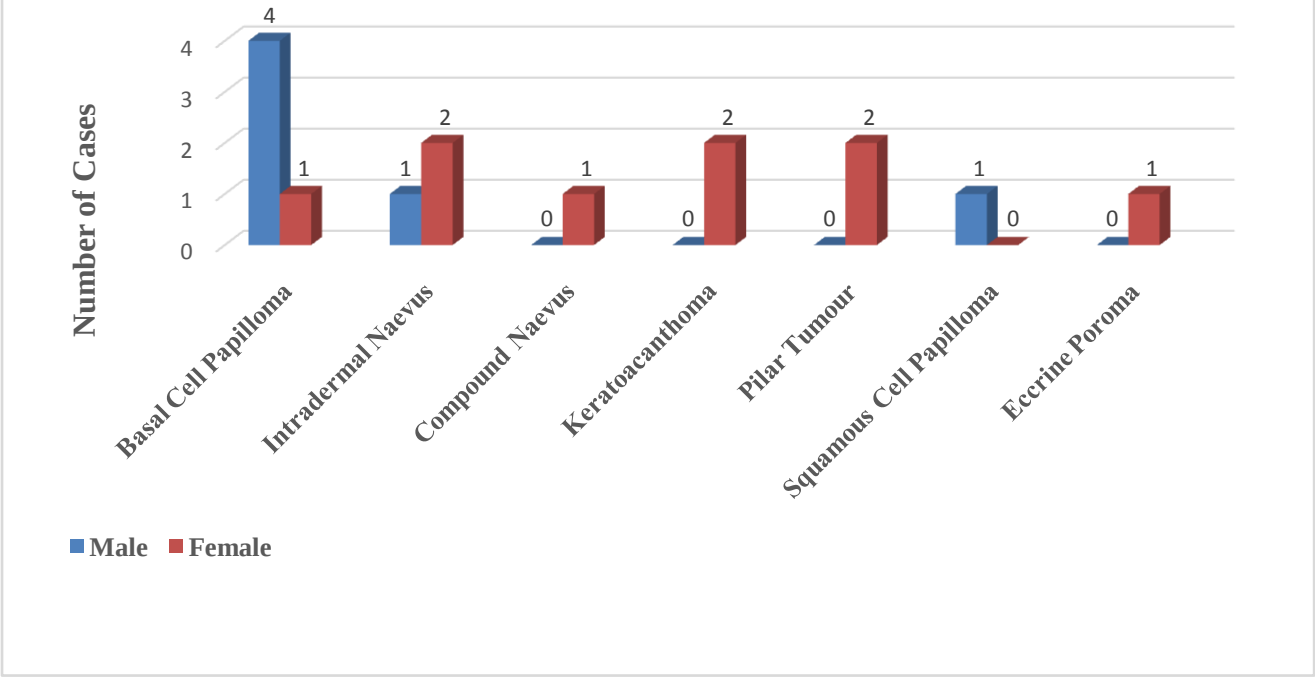

**Basal Cell Carcinoma (Age Distribution by Sex)**

Figure 3




**Squamous Cell Carcinoma (Age Distribution by Sex)**

Figure 4




**Benign Skin Tumours (Histological Type by Sex)**

## CONCLUSION

Tumours of the skin are extremely variable and are very common throughout the world. Skin cancer is the fifth leading cause of death from cancers in the USA[4]. According to the Iraqi cancer Registry for the period 1986-1988 cancer of the skin formed (6.7%) of the ten commonest cancers in both males and females and ranked fourth in order of incidence. While in Mosul the incidence was slightly lower at (4.7%) during the same period[3]. These results differ from a selective study on skin cancer performed at the Department of Histopathology in Mosul Medical College in

1986 which showed a relative frequency of (16.53%) of skin cancer to all other malignancies diagnosed during 1979 to the first half of 1985[5].

**Basal cell Carcinoma:** Is considered as the most frequent type of skin cancer [1]. , accounting for up to (80%) off all non-melanoma skin cancers[6].

In Iraq the ratio is lower at (57.5%)[3]. While in Mosul the ratio is relatively higher at (70.2%)[5]. In my limited collection Basal cell carcinoma accounted for (64%) of all cancer cases. Basal cell carcinoma occurs predominately on the sun exposed skin[1]. Usually affecting middle aged people who are fair skinned, blue eyed engaged in outdoor occupations with chronic sun exposure[2, 4]. This explains the high incidence in Southern United States, South Africa and Australia[2, 4]. Basal cell carcinoma occurs in a relatively restricted area on the face, in front of ears, above the mouth and below the supraorbital ridges [2]. It rarely occurs on the palms or soles affecting mainly black people [1]. This distribution has been verified in a study from SE Netherlands on 650,000 persons during a period 1975-1988. They found that about (80%) of the cases of Basal cell carcinoma and Squamous cell carcinoma occurred on the head and neck[7]. This is also evident in my collection were 91.3% of Basal cell carcinoma occurred on the head and neck.

**Squamous cell Carcinoma:** Is less common than the former. It arises most commonly in sun damaged skin (Solar-Keratosis) [8].

While both Basal cell carcinoma and Squamous cell carcinoma occur more commonly in people with fair complexion. The risk associated with high sun exposure is greater for Squamous cell carcinoma than for Basal cell carcinoma [9]. People with pigmented skin specially blacks are protected against this type of cancer[1]. In the study from SE-Netherlands which was arise in the true incidence of Basal cell carcinoma and squamous cell carcinoma, an increase in Squamous cell carcinoma only since 1982 and a marked decline in the incidence of Squamous cell carcinoma on the lips of males[7]. Squamous cell carcinoma in Iraq accounted for (30.8%) of all skin cancers[3], and (26.9%) of all cancers in Mosul[5].

This ratio is very close to mine of (28%). Although the number of the cases of Squamous cell carcinoma in my limited collection is small. I found that the face was the most common site affected (70%), and the females show slight predominance on males M:F ratio 1: 2.3.

**Malignant Melanoma:** There were two cases of malignant melanoma in this series both were females had tumour in their lower extremities.

Malignant melanoma is uncommon in Iraq it accounts for 0.5% in males & 0.6% in females from all cancers during the period 1986-1988[3]. It is interesting to note that malignant melanoma shows a predilection for lower extremities in females[10].

**Benign Tumours:** Only 15 cases of benign tumours were received at both laboratories during the period of my training. They comprise examples of seven pathological types.

This extremely small number does not reflect the actual prevalence of these tumours which can be easily dealt with at private clinics and private laboratories.

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