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<b>Department</b>	<b>Microbiology</b>			
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<b>Thesis Title</b>	<i>Mycological study of wound infections among Iraqi patients in Baghdad city.</i>			
<b>Year</b>	<b>2013</b>			
<b>Abstract</b>	<p>Two hundred fifty swabs were collected from patients admitted to Burn Unit , Surgical and Plastic Surgery at Burn Specialist Hospital ,Al-Kindy Teaching Hospital , Al-Wasety Specialized Hospital , Sheik Zaed Emergency Hospital and Baghdad Teaching Hospital and they divided in to 150 swabs from burned patients and 100 swabs from other types of infected wounds ( surgical ,fractures ,car accident , gun shot and other types of trauma) during the period from November 2011 till October 2012 . The handling and diagnoses of these swabs were carried out at Teaching Laboratories ,Central Health Laboratory and Ibn-Albalady Hospital.</p> <p>Three major types of wounds were seen including burn , surgical and different kinds of trauma . All isolates obtained in this study identified depending on the microscopical appearance ,colonial morphology of fungi and by using RapID™ Yeast Plus System and with some other tests ,the confirmation of these results was done by using Vitek 2 Compact System. Burn wounds were having the largest number (60%) of studied wound infections and in positive fungal cultures 92(61.33 % of total burn wound), there was 89 isolates(49.17%)of yeasts out of the total fungal isolates which isolated from all kinds of wounds 181isolates , 14 isolates(7.7%)of mold out of the total fungal isolates , the most common fungal pathogen isolated from burn wound was <i>Candida</i> spp. 49 isolates (27%) followed by <i>Cryptococcus</i> spp. 24 isolates(13.25%)and <i>Aspergillus</i> spp. 9 isolates(4.97%).</p> <p>The incidence of wound infections was high in burn patients, and dry heat 133(88.6) was the most common causes of burn wounds , burn wound was higher in females 122(81.33%) than males 28(18.66%), females were admitted to burn hospital with a history of attempted suicide 30(96.8%) more</p> <p><b>Summary</b></p>			

## II

than males 1(3.2%) , and there was a significant difference between them ,the difference was also significant in the prevalence of wound infections among males and females , burn injuries occurred in relation to age represented a higher percentage (60.6%) among ages (20-29) years old , while the lowest occurrence (33.3%) in ages less than one year , fungal burn infections represented a (100%) in ages less than one year , while (33.3%) was seen in ages between (1-9) years old burned patients .

The largest number of burn patients was 39(26%)with TBSA(30-39%) , the TBSA>30% was mostly infected with fungal elements(82%) ,and reach 10 fungal isolations(100%) with TBSA more than 70 % TBSA. Mortality rate in positive fungal infections was with TBSA 30-39 %(50%) and reach (100%) in 50-59 % TBSA . Infections was higher in burned patients 31(33.7%) in the second week post injury and the lower incidence in the fourth week 5(5.4%) ,the number of single isolates was 59(32.6%)and mixed isolates 46(25.4%) . While other wounds showed positive fungal cultures 75 ( 75%) , as 62 (34.25%) isolates of them were yeasts from all kinds of wounds 181isolates , and 14 (7.73%) isolates of them were mold , the most common fungal pathogen isolated from these wound was *Candida* spp. 40 isolates (22.09%) followed by *Cryptococcus* spp. 9 isolates(4.97%) and *Aspergillus* spp. 7 isolates(3.86%).

In other wounds the infection rate was higher in males 66(66%) than females 34 ( 34% ) , as there was a significant difference between males and females in relation to age when represent a high percentage seen among age group( 1-9) years old ( 20 % ) , while the lowest percentage ( 3 % ) was seen in age group less than 1year , the fungal infections occurred in relation to age represent a high percentage (100%) in patients less than one year and in age

Summary

## III

group ( 60-69) years old , while the lowest infection rate (33.3%) was seen in ages between (20-29) years old in patients suffering from other wounds.

A high percentage of patients showed infection in the second week post injury 17 ( 23 % ) and the lowest percentage of infection seen in other wounds 2 patients ( 2.7 % ) was in the fourth and eight weeks after injury ,the number of single isolates was 56(30.9%)and mixed isolates 20(11.0%) . Sensitivity test was done by disc diffusion method ,six antifungal discs were used ( Amphotericin-B , Nystatin , Clotremazole , Ketoconazole , Fluconazole and Flucytosine ) , in this study Amphotericin-B was the most antifungal effective against most fungal isolates while , Fluconazole and Flucytosine were the less effective against these isolate