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Complicated Pediculosis in Occurrence of Bacterial Skin Infection

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ABSTRACT:

Total of (66) patient infested by external parasite or mites (pediculus captis ware studied for occurrence of bacterial skin infection) females ware more infection than males ,females ware (54) cases, while male are (12) of total infection Swabs cultured from these cases on blood agar , mannitol salt agar ,confirmed by biochemical test, show, that Staphylococcus aureus (81.18%), Staphylococcus epidermidis and Pseudomonas aeruginosa (4.54%) , also mixed infection Staph. aureus and Pseudomonas aeruginosa (9.09%).Drug sensitivity test revealed that all isolates sensitive to dicloxacillin , rifambine , ciprofolxacillin ,(cephalexin and gentamicin) , while acombination two antibiotics with the same time are appeared highly sensitive and effective against this infection , also Pseudomonas aeruginosa sensitive to aminoglycosides, polymyxin and pencillin.

INTRODUCTION

Lice ,like other insect, live on blood unlike mosquitoes, however ,they spend their entire life on or near the skin surface ,lice fail two categories ,biting lices ,only the suckling lice are found on human skin(1). The head, louse live on the scalp ,preferably the back of the head, the most favored areas are around the ears, the creature is marginally smaller than the clothes louse, with the male slimmer than the female ,but head are difficult to distinguish(2). The head louse rarely invades other body regions, though it is occasionally found in the bearded, it attaches its nits hairs, young people are attacked more than older ones, it is immaterial whether the scalp is dirty or clean, the long haired individual were more severely infested ,for this reason those at risk used you have their shared,often female(3).staphylococcus aureus cause invasive disease by breaching host defense barriers the most common portals of enter leading to staphylococcus invasion are the skin and associated structures(2) . A Indus for staphylococcal colonization and subsequent invasion by chronic skin conditions such as Pediculosis, eczema and psoriasis ,acute breaks in the skin such as puncture wounds ,abrasion , laceration and abnormalities of skin appendages ,

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such as hair follicles, Staph.aureus is the most common etiologic agent of skin and soft tissues infection ,infection may represent a primary pathologic process with direct invasion of skin and adjacent tissues or a secondary process complicating preexisting lesions(2).Staphylococcus pidermidis are major cause of nosocomal infection, opportunistic infection and are invariable and also prominent constituents of the normal human skin flora. Infection most often results from direct inoculation of foreign body at the same time it is inserted and hematogenous seeding can also occur (6, 7, 10, 12). Pseudomonas aeruginosa wound complicating;extensive bum injuries results from colonization of bum site or wounds, Pseudomonas bum wound sepsis are II facilitated by injury associated with break down of normal skin (13,14, 15).

MATERIAL AND METHODS

Specimens and sampling Dermatological swabs were collected from 66 patients with different skin Pediculosis diseases attending the out patient clinical of the Dermatology Department of the Basra Hospital during 2003-2004. Specimens from scalp and complicated lesions, swab transported to the laboratory from immediate examination and culturing on blood agar (Merk) and after 24 hours mannitol salt agar (Oxoid) for isolation of Staph. aureus, Pseudomonas aerogenosa on blood agar produces large, flat II , spreading colonies which are often hemolytic, the pigment diffuse in the medium giving it a dark greenish _ blue color Some strain produce small colonies or mucoid colonies. KIA medium a characteristic pink -red and pink -red button, t gas and H2S produce, oxidase positive and produces acid only from glucose and mannitol(14)

RESULTS

Females were highly infected than males, females were 54 cases while males were (12) cases of total infection .infection localized in ahead and scalp, predisposing factors like hygiene and humidity were the main cause of spread of this infestation and infection staph. aureus were recorded highly infection and incidence (81,81%). Staphylococcus epidermidis and Pseudomonas aerogenosa (4,54%). while mixed infection of staph .aureus and Pseudomonas aerogenosa (9, 09%) table 1.

DISCUSSION

The infected area localized in ahead scalp lead to complication by nosocomal pathogen of secondary infection, while some cases due to primary infection ,other cases had mixed infection ,in the early 1970 show a large increase in the prevalence of head lice in Europe and elsewhere (11,12) . In 1980 fond that the prevalence among school children was 9, 6%, and this results compatible with our finding. The main pathogenic bacteria of scalp infection were Staph. Aureus invade injuries in skin due to pediculus , this our results were acceptable with that recorded by (2),but new findings were presented some types of microorganisms as staphylococcus epidermids and pseudomonase aeruginosa was inevitable, the type of infection was varied and covered ulcers, abscess, cellulitis ,trauma wound and postoperative wound infection ,skin and structure infection. But G- bacilli were not reported separately resemble to (10). Antibiotics sensitivity test, described the essential elements of therapy for staphylococci, the relentless spread of antibiotic resistance among strain of staph. aureus is one of the great challenges facing clinicians to day .staph. aureus

resistance to B-Iactam and penicillin was reported with same results of (10) Staphylococcus epidermidis also produces a polysaccharide known as slime, which is important in the persistence of infection and resistance to antimicrobial agents. Despite the low degree of pathogenecity, treatment of serious infection due to these organisms is usually problematic and for this reason most strains are resistant to commonly antibiotics, only to penicillin and cephalosporin's, sensitive to coxacillin and a first generation cephalosporin. These results similar to our findings (3, 6, 12). Ciprofloxacillin highly active against pseudomonas aerugenosa, Poly myxine, Gentamicine and penicillin, especially a combination or union like Ciprofloxacillin, this our results well had fits with that observed by (10,13,14).

Table (1) Illustrated the numbers and types of microorganism isolated From complicated pediculosis.

Isolated microorganism	Case No	percent
Staphylococcus aureus	58	81.81
Pseudomonas aerugenosa	2	4 .54
Staphylococcus epidermidis	2	4.54
Staph. aureus + pseudomonas	4	9.09

Table (2) Antimicrobial agents' effects and Isolated Microorganisms

Antimicrobial Agents	Isolates		
	S.aureus	S.epidermidis	Pseudomonas
Dicloxacillin	S	S	S
Rifampin	S	S	S
Ciprofloxacillin	S	S	S
Cephalexin	S	S	S
Gentamicin	MS	S	MS
Polymxin	R	R	S
Penicillin	R	R	S

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