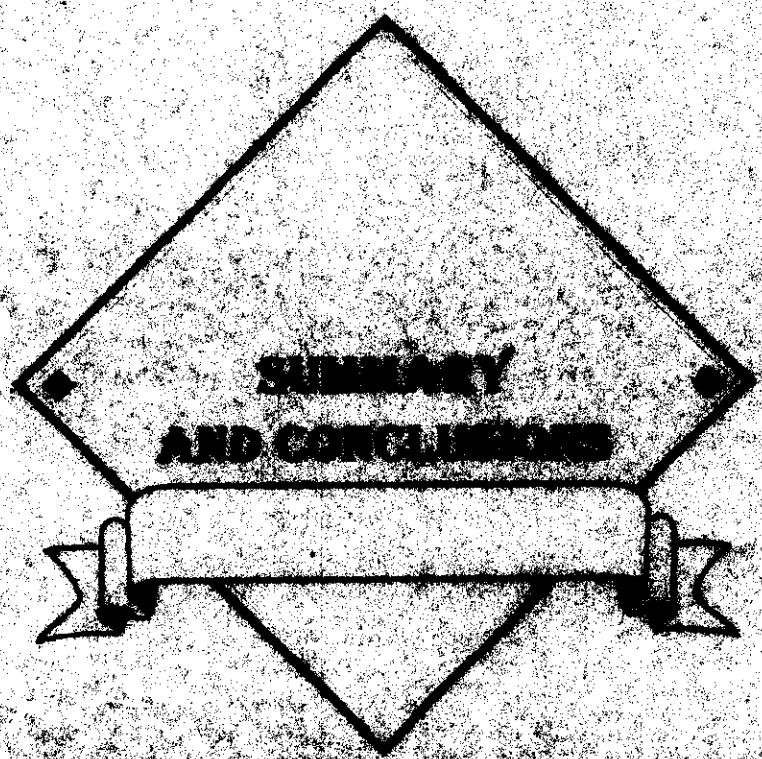

SUMMARY AND CONCLUSION

Staphylococcus aureus is a major pathogen affecting patients of all ages even apparently healthy people, it is an important cause of infection in hospitals and community.

S. aureus responsible for many of the suppurative infection encountered in clinical practice and it exihibits extra-ordinary adaptive capabilities and is able to overcome a variety of ecological and environmental adversities. Rapid development of antibiotic resistance specially to methicillin soon after a drugs become available, is a well known feature of this species.

This organism is found in different sites of the body, skin is frequently inhabited by this organism, the umblicus, axilla, perineum, face, hands, hair are heavely populated by this organism. The nares are also frequent sites of colonization by *S. aureus*.

Because of easly spread of *S. aureus* from patient to patient or even from hand of staff after become colonized while performing patient care activities, so control of transmission by several methods is very essential to prevent high morbidity and mortality rates associated with *S. aureus* infection.

Three handreds samples obtained in this study by swabs from different suppurative infections of patients from different departments, also, doctors and nurses were swabed from nose and hands. From all these

samples, 83 *S. aureus* strains were isolated and further susceptability tests performed to them.

Typing of isolated *S. aureus* by disk diffusion method was done using the following antibiotics, ampicillin, cephalexin, clindamycin, erythromycin, fucidic acid, gentamycin, methicillin, rifampin, tarivid, tetracycline and vancomycin.

It is widely recognised that resistance to methicillin is usually accompanied by concomitant resistance to a number of unrelated classes of antimicrobials. Thus strains of MRSA are almost multiple drug resistant and the incidence of MRSA have reported in many institution in recent years. So, methicillin susceptability is a useful marker for selecting potential agent for treatment of infection caused by *S. aureus*.

Vancomycin resistance also appeared although some researchers thought that it is the last line of defence against MRSA infection. So, treating infections caused by this organism or eradicating colonization by combination therapy especially by quinolones and rifampin, also strict prevention and control of infection caused by this organism especially nosocomialy transmitted is the best method to avoid highly morbidity and mortality rates associated with *S. aureus* infection.

In conclusion, antibiogram by disk diffusion for *S. aureus* can be used epidemiologically but we don't always have a unique antibiogram that can provide a marker for epidemic strains.