STUDY ON THE BACTERIAL FIORA OF OROPHARYNX AND SALIVARY SECRETORY IMMUNOGLOBULINS (A) IN RELATION TO THE TYPE OF FEEDING OF INFANTS

A THESIS

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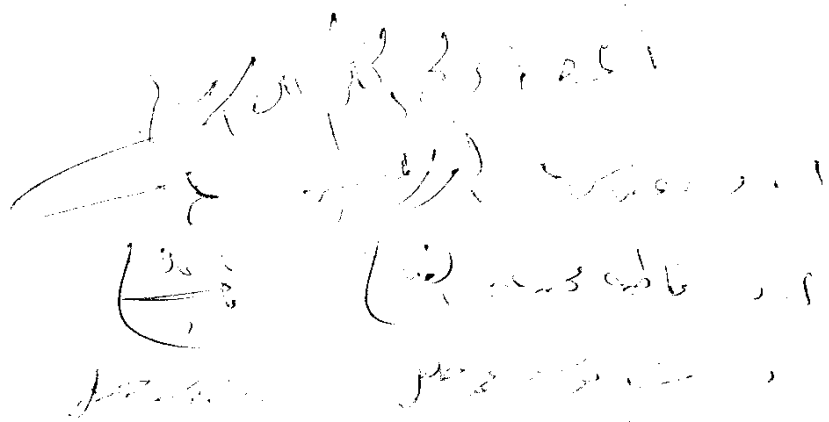
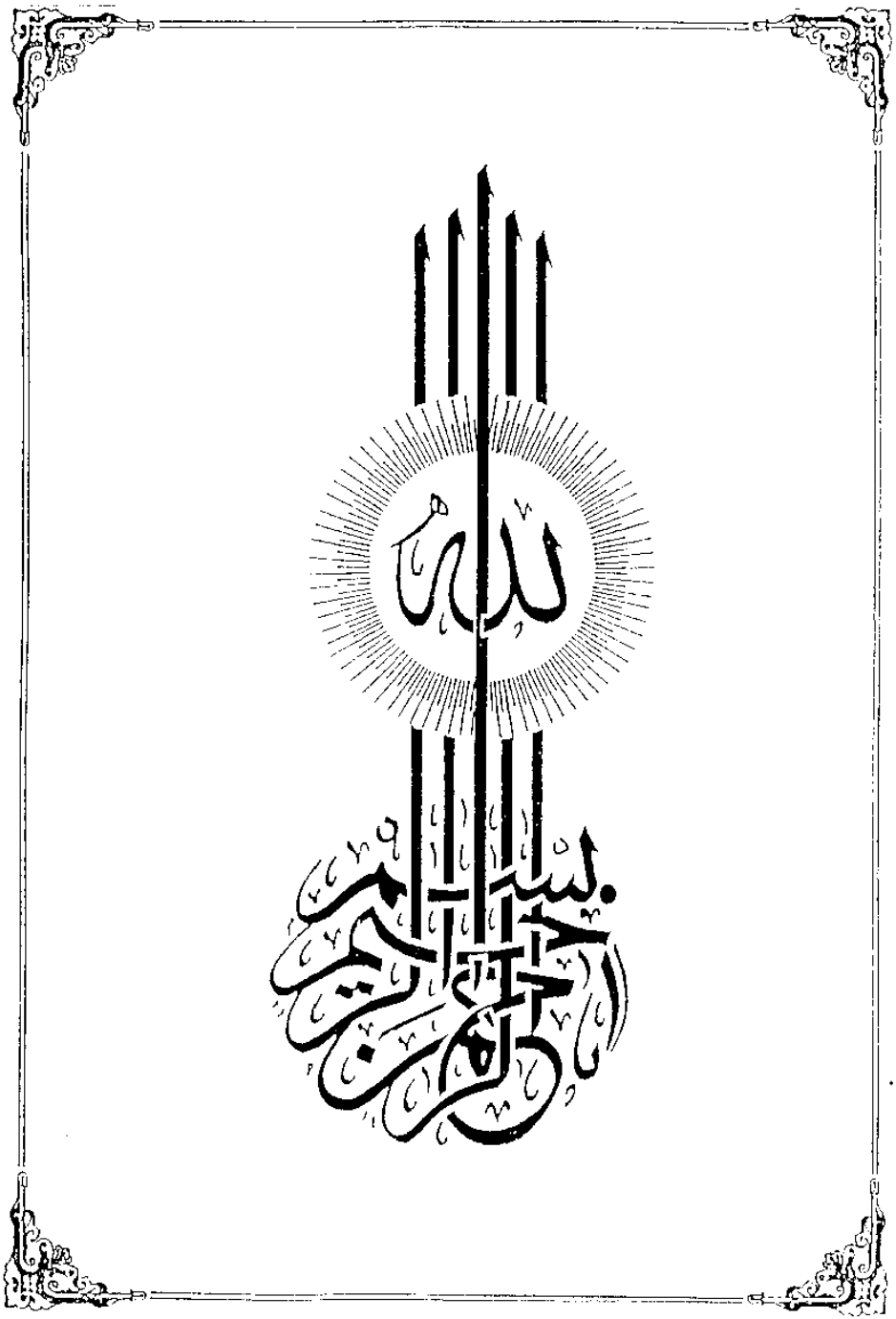
TO MY DAUGHTER RASHA





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AIM OF WORK

Introduction and Aim of Work

The main health problems in infants and children in developing countries is derived from recurrent respiratory and gastro-intestinal tract infections . These repeated infections were attributed to defective immune defence mechanisms in those infants due to malnutrition of their mothers (Leonard et al 1968) and the infants nutrition themself (Nelson 1979).

Bad bygenic conditions is another important factor affecting the health of infants specially in developing countries (Goldman and smith 1973).

According to (Wilson and Miles 1955) the infant is born sterile but bacteria quickly impigne itself inside him through his mouth and the process of contamination

proceeds forward by the infant's use of his mouth as an organ of suckling and testing the physical and chemical nature of the envirement.

The aim of this work is to study the normal oropharyngeal flora of infants and the level of salivary secretory IgA and to investigate the effect of type of feeding on them .

REVIEW OF LITRATURE

The Normal Microbial Flora

Born into an enviroment laden with microbes, the body of man becomes infected from the moment of birth (Socransky 1971). Throughout life the skin and mucus membranes exposed to outside would harbour a variety of bacterial, fungal and viral species called indigenous or autocthonous .

There is a basal flora characterestic of man kind under all conditisns and a supplementary flora which varies in frequency by the local transient environeutal factors . (Dulbecco. 1972).

The host parasite relationship can be described as parasitism, saprophytism, commensalism, simbiosis or

mutualism. There is an equilebrium state between different species on a given surface of the body (Bloomfield et al 1919 , 1923).

(Table A) was collected by (Roseburry 1962) to describe the distribution of the basal common flora and the transient rare ones.

(Table A) The distributon of the comomon and the transient flora in the different anatomical sites.

Organism	Skin	Conj	Nose	pharynx	mouth	intestine	ext. genitalia
Staphylococci	+	±	+	±	±	±	±
Pneumococci		±	±	+	+		
St. viridans	+	±	+	+	+	+	+
Haemolytic st.				±	±		
Anaerobic st.				+		+	
St. Faecalis	±			±	+	+	+
Neisseria				±	+	±	+
Veillonella					+	+	
Lactobacilli	+	+	+	+	+	+	
Clostridia					±	+	±
Haemophilus		+		+	+		
Entericbacilli				±	+	+	+
Bacteroides				+	+	+	+
Mycobacteria	+		±	±		+	+
Actinomyces				+			
Spirochaetes				+	+	+	+
Mycoplasma				+	+	+	±

\+ Common Flora .

± Rare flora but may be present as transients .

The relation of the microbial flora to the host usually lies between actions benefecial or actions harmful causing disease . The bacterial floral members may be confused with the aetiological organism causing disease (Nancy et al 1974) .

The Oropharyngeal Flora

In utero the oropharynx of the foetus is normaly germ free (Hoffman, 1966) (Dulbecco 1965). At birth it is usually sterile (Mccarthy et al 1965). Soon it is inoculated during birth from the flora of their mother's birth canal eg :- Lactobacilli , Micrcccocci, coliform , the anaerobic streptococci and yeasts (Topley & Wilson 1964). By the time of the first feeding it is inoculated with organisms from the enviro-ment and from bodies of mothers and other attendants . Even so , the newly born infant's mouth is highly selective during at least the first few days of life (Zinsser 1962) Crganisms different from those harboured by immediate contacts may be aquired , for example, identical twins may harbour different strains of the same species (Topley & Wilson 1964) .

Bacteria of the oropharynx are subject to a great variation in number and kind (Burnett et al 1968)

Wagg 1965 made counts of the same person at different times and found that counts fluctuates widely giving diffeculty to decide whether patterns of microbial flora changes significantly later in life .

The selectivity continues into adulthood for husbands and wives who do not necessarily carry the same bacteria simultaneously in their throats . (Burnett et al 1968).

All conditions in oropharynx are favourable to harbour organisms . Even very clean and healthy mouths contains a considerable amount of debris and other organic matter derived from particles of food , desquamated epithelium, pharyngeal mucus and these provide nutrients for diverse flora which necessarily undergoes frequent change. Low