

## INTRODUCTION

The skin, the largest organ in the body, protects underlying tissue. Skin and subcutaneous fat are thinner in the preterm infant and, thus, more easily damaged (*Eichenfield and Hardaway, 1999*).

The stratum corneum (SC), the outermost portion of the epidermis, which has an important barrier function, thickens with gestational age allowing reduction of transepidermal water loss and a reduced vulnerability to trauma, infection and absorption of toxic substances (*Ghadially et al., 1992*).

The thickness of the stratum corneum plays a role in its barrier function, full thickness of infant skin is said to be 40-60% that of adult skin. The skin of newborns is known to be relatively susceptible to irritants. This cannot be attributed to a reduced skin barrier function, which has been found by all studies to be effective but other variables related to stratum corneum function, such as skin pH and desquamation may enhance the irritant potential of compounds on newborn skin (*Yosipovitch and Maayan-Metzger, 2000*).

Stratum corneum pH is important for its function, as the acidity of the SC plays an extensive role in homeostasis. Barrier recovery proceeds normally in acidic pH not neutral or alkaline pH. Normal function of stratum corneum lipids, regulation of desquamation and control of bacterial skin flora are all dependant on an acidic environment. The acid mantle of the stratum corneum is thought to arise from a combination of factors: secretion of sebum (fatty acids), sweat (lactic acid), amino acids, urocanic acid (derived from filaggrin), pyrrolidone carboxylic acid from keratinization and hydrogen pumps from lamellar body exocytosis (*Ripple et al., 2002*).

Although there is no widely accepted and consistent classification, skin lesions in neonates may present as papules, plaques, patches, pustules, vesicles, bullae, erosions or ulcerations. The most common presentation is that of vesiculopustular lesions, which can be the presenting feature for a variety of infectious, inflammatory, genetic and transient neonatal disorders (*Wagner, 1997; Gilliam et al., 2008*).

## **AIM OF THE WORK**

The aim of this work was to determine the prevalence of common skin conditions in the neonates in Qalyubia governorate.