

# THE INCIDENCE OF BIRTHMARKS IN IRANIAN NEONATES

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**Abstract-** A number of innocent rashes occurs in neonates. They are usually transient and self limited and thus require no therapy but early recognition is important to distinguish these lesions from more serious disorders. In this study, our purpose was to determine the frequency of birthmarks in Iranian neonates. The presence of various types of birthmarks was determined in 503 Iranian neonates under 72 hour of age. The physiological skin changes observed in order to frequency were Epstein pearls in 444 (88.27%), Mongolian spot in 409 (81%), erythema toxicum in 272 (54%), sucking blisters in 264 (52.1%), Salmon patch in 262 (52%), milia in 232 (46%), petechia in 41(0.08%) and mottling in 29 (0.06%). Petechia was seen more commonly in vaginal delivery and in babies with more birth weight. Mottling was more common in premature and low birth babies. Our data suggest that the incidence of birthmarks in Iranian neonates is similar to the prevalence reported by others in white neonates.

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**Key words:** Neonate, incidence, birthmarks, skin, transient

## INTRODUCTION

A number of innocent rashes occur in neonates. They are usually transient and self limited and thus require no therapy (1-5). Early recognition is important to distinguish these lesions from more serious disorders and to provide appropriate counseling to parents (1-9).

There are very few reports in the available literature regarding the prevalence of cutaneous lesions seen in the newborn (10-16). Therefore, the present study was undertaken to review the pattern of dermatoses in Iranian neonates.

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## MATERIALS AND METHODS

A total of 503 newborns delivered at Shariati Hospital, Tehran, Iran, were entered the study. The neonates were examined thoroughly including general physical, systemic and dermatological examinations. We obtained informed consent from parents of all participants.

The sex, birthmarks, mode of delivery and age in hours at the first examination were recorded in each case. The neonate was examined under 48 hour age and all dermatological findings were noted. Infants of minority ethnic groups were not considered. We also excluded newborns with major congenital chromosomal or metabolic abnormalities.

The lesions were studied to assess the relationship between their occurrence and the various maternal-neonatal aspects. Simple non-invasive investigations such as examination of scraping for *Candida*, pus swab for bacterial culture, smears from pustules for gram staining and Tzanck smear from vesicles were performed whenever they were required.

## RESULTS

Of the 503 newborn, 287 (57%) newborn were male and 216 (43%) were female. There were 55% normal vaginal deliveries and 43% cesarean sections.

The mean  $\pm$  SD weight was  $3123.75 \pm 492.04$  gr. The incidence of cutaneous lesions as observed in this study are shown in table 1.

## DISCUSSION

The appreciation of normal phenomena and their differentiation from the more significant cutaneous disorders of the neonate is critical (1-5).

In the present study 503 neonates had one or more cutaneous lesions. In our study Epstein pearls were the most frequently observed lesions, presented in 444 (88.27%) babies. The incidence in the present study is nearly comparable with the incidences observed in other studies (6-8, 10-16). These were more among males compared to females. Illness in the mother during pregnancy does not appear to influence their development and there was no correlation to the sex and weight of newborn and the mode of delivery.

Mongolian spots were seen in 406 (81%) babies. Incidence of Mongolian spots in our study is almost comparable with those of other workers (6-8, 10-16).

Mongolian spot is found in over 90 percent of Native American and Asian babies (8, 11-13, 15, 16). They had no relationship to any disease or mode

of delivery. Most fade away by 2 year age, although a trace may persist in to adult life.

A total of 272 (54%) cases of erythema toxicum neonatorum were seen in our study. The incidence ranges from 30 to 70% of newborn in different studies. The variations in the different observations may be attributed to the fact that the babies were followed up for more than 5 days in some of the studies (6-8, 10-16). The upper arms, thighs and face involved. More than 50 percent of babies had the rash on the second day of life.

Sucking blisters were found in 264 (52%), salmon patch in 262 (52%) and Milia in 232 (46%) babies. Petechia was present in 41 (0.08%). It was seen more commonly in vaginal delivery and in babies with more birth weight. Mottling was seen in 29 (0.06%). It was common in premature and low birth babies.

The study of newborn skin is interesting. It is important to be aware of the fact that most of the skin lesions in the newborn are innocent and transient. Therefore, these should be differentiated from other more serious skin conditions which will avoid unnecessary therapy to neonates and parents can be assured of good prognosis of these skin manifestations.

## Conflict of interests

The authors declare that they have no competing interests.

**Table 1.** Incidence of cutaneous lesions in neonates

Cutaneous Lesion	No	Type of delivery		Sex	
		C/S	Normal vaginal	Female	Male
Epstein Pearls	444 (88.27%)	201 (45%)	243 (55%)	202 (45%)	242 (55%)
Mongolian spots	409 (81%)	201 (49%)	208 (51%)	196 (48%)	213 (52%)
Erythema toxicum	272 (54%)	123 (45%)	150 (55%)	143 (52%)	129 (48%)
Sucking blisters	264 (52.1%)	128 (48%)	136 (52%)	131 (49%)	133 (51%)
Salmon patch	262 (52%)	120 (46%)	142 (54%)	138 (52%)	124 (48%)
Milia	232 (46%)	96 (54%)	136 (59%)	101 (44%)	131 (56%)
Petechia	41 (0.8%)	9 (22%)	32 (78%)	21 (51%)	20 (49%)
Mottling	29 (0.6%)	16 (55%)	13 (45%)	14 (48%)	15 (52%)

Abbreviation: C/S, Cesarean section.

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