Abstract
Objective: To analyze the clinical spectrum of skin conditions in neonates at Hamdard university hospital. Study Design: Descriptive (Observational) cross sectional study.
Methods: This study was conducted from January 2008 to December 2009. All neonates seen at Hamdard university hospital during this period were examined. Neonates with skin conditions within 28 days of birth were registered on a predesigned questioner by the house officer these cases were confirmed by the pediatric consultant, followed by detail physical systemic examination and skin examination. Dermatologist was involved in the diagnosis of difficult cases.
Results: Total numbers of new born seen during the year 2008–2009 were 1660, there were 65% males and 35% females, 1360 (81.92%) were above 2.5 Kg at birth, 18.08% were below 2.5 Kg. Numbers of neonates with skin lesions were 577 (34.75%). Neonates with skin infections were 25.12%, 15.59% had with nappy rash and 15.59 % had erythema toxicum neonatrum. Neonates with milia were 60 (10.39%) and with erythema were 27 (4.67%).
Conclusion: Clinical spectrums of neonatal skin are different in this study as compared to other regional and international studies.

Streszczenie
Cel: Analiza kliniczna spektrum chorób skóry u noworodków w szpitalu Uniwersyteckim Hamdard. Projekt badania: Opisowy (obserwacyjny) przekrój badania.
Wyniki: Całkowita liczba noworodków obserwowana w latach 2008 - 2009 wynosiła 1660, w tym 65% płci męskiej i 35% płci żeńskiej, 1360 (81,92%) było powyżej 2,5 kg po urodzeniu, 18,08% było poniżej 2,5 kg. Liczba noworodków z zmianami skórnymi wynosiła 577 (34,75%). Noworodki z infekcjami skóry były 25,12%, 15,59% miało pieluszkowe zapalenie skóry a u 15,59% stwierdzono toksyczny rumień noworodków. Noworodków z prosakami było 60 (10,39%) a z rumieniem 27 (4,67%).
Konkluzja: Kliniczne spektrum skóry noworodków w tym badaniu różni się w porównaniu do innych badań regionalnych i międzynarodowych.

Key words: newborn; dermatology; dermatose
Słowa kluczne: noworodek; dermatologia; dermatozy
sex, maturity, birth weight, significant maternal history and mode of delivery was elicited. and a pretested questionnaire was used, data was collected by the house officer department of pediatrics, diagnosis was confirmed by consultant, difficult cases were discussed by the dermatologist and diagnosis confirmed by detail physical systemic examination and skin examination. SPSS 15 was used to determine frequencies and endnote for writing references.

**Limitation of study:** Sort duration of study two year, small number of cases, relation of skin lesions to preterm, term, post term neonates, and low birth weight / normal weight neonate was not studied.

**Results**
Total numbers of new born during the year 2008- 2009 were 1660 newborns.  
Total numbers of male children were 1078 (65%), female neonates were 582 (35%).  
Total numbers of children above 2.5 Kg birth weight were 1360 (81.92%).

<table>
<thead>
<tr>
<th><strong>Dermatological conditions</strong></th>
<th><strong>No of cases</strong></th>
<th><strong>Percentage</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Infections</td>
<td>145</td>
<td>25.12%</td>
</tr>
<tr>
<td>Mongolian spots</td>
<td>120</td>
<td>20.79%</td>
</tr>
<tr>
<td>Transient toxic erythemia</td>
<td>90</td>
<td>15.59%</td>
</tr>
<tr>
<td>Nappy rash</td>
<td>90</td>
<td>15.59%</td>
</tr>
<tr>
<td>Milia</td>
<td>59</td>
<td>10.22%</td>
</tr>
<tr>
<td>Erythema</td>
<td>27</td>
<td>4.67%</td>
</tr>
<tr>
<td>Neonatal acne</td>
<td>25</td>
<td>4.33%</td>
</tr>
<tr>
<td>Hamangiomia</td>
<td>10</td>
<td>1.73%</td>
</tr>
<tr>
<td>Café- eu-lail</td>
<td>2</td>
<td>0.34%</td>
</tr>
<tr>
<td>Collodian baby</td>
<td>2</td>
<td>0.34%</td>
</tr>
<tr>
<td>Seborrheic Dermatitis</td>
<td>2</td>
<td>0.34%</td>
</tr>
<tr>
<td>Epidermolysis bullosa</td>
<td>1</td>
<td>0.17%</td>
</tr>
<tr>
<td>Sucking blister</td>
<td>1</td>
<td>0.17%</td>
</tr>
<tr>
<td>Scalded Skin Syndrome</td>
<td>1</td>
<td>0.17%</td>
</tr>
<tr>
<td>Neonatal pustular melanosis</td>
<td>1</td>
<td>0.17%</td>
</tr>
<tr>
<td>Harlequin fetus</td>
<td>1</td>
<td>0.17%</td>
</tr>
<tr>
<td>Total</td>
<td>577</td>
<td></td>
</tr>
</tbody>
</table>

Table I. General distribution of skin conditions

**Discussion**

Neonates skin condition deserve special attention in hot humid, subtropical climate of Karachi, there is limited data on neonatal dermatology in Pakistan. Five year study by Maqbool S. Razzak S. [3] and Zahoorullah [4] on skin disorders in children, there is no case report of neonatal skin lesion. Benton EC [5] has not reported a single case of neonatal dermatitis during 25 years of their study period. Some international studies have mainly focused on benign cutaneous lesions in newborns [6,7].

34.75% neonates had skin manifestations during the study period, reported incidence is 27.6% to 47.15% [10-11].

Maximum numbers of cases in this study were due to Skin infections (25.12%) this is particularly important because our neonates are over covered, in hot humid, subtropical climate. Reported incidence is between 5% to 47.15% [10-11].

There were 21% neonates with Mongolian spots, mainly on buttocks in this study; reported incidence is 56% to 98% [13-14].

There were 15.59% with nappy rash in this study; Ferahbas A et al [14] reported incidence of 2% this difference may be due to financial reasons, our mothers do not change nappies as frequently as required leading to prolong stool contact resulting in nappy rash.

Erythema toxicum neonatrum is the most common pustular dermatitis in newborns a benign condition requiring no intervention, presented in 15.50% of neonates in this study, reported incidence is 21-40% [15,16].

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There were 10.22% neonates with milia in this study; reported incidence is 40-50% in other studies [17]. There were 4.33% reported incidence is 40-50% in other studies [18]. There were 1.73% neonates with Hemangioma in this study; Mishra PC, et al reported similar incidence [19]. 0.34% neonates presented as colloidan baby, seborrhoeic dermatitis, and café – au-lait in this study. There was one case of Harlequin’s fetus (0.17%). Sarkar reported an incidence of 0.11% [20]. 0.17% neonates in this study had Epidermolysis bullosa, Sucking Blister, Scalded Skin Syndrome, and Neonatal pustular melanosis. The pattern of skin infection in neonate is also different then other studies reported in regional and international studies [21-27].

**Limitation of study:** Sort duration of study two year, small number of cases, relation of skin lesions to preterm, term, post term neonates, and low birth weight / normal weight neonate was not studied.

**REFERENCES**