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Original Article

Neonatal dermatology at tertiary care teaching hospital

Muhammad Javed *

Department of Pediatrics Hamdard University Hospital M.A. jinnah Road, Karachi, pakistan

Abstract. Aim: To determine the nature of the neonatal dermatological problems at Hamdard University Hospital *Descriptive (Observational) cross sectional study*. This study was conducted from January 2008 to December 2008 All children under the age of 28 days, with dermatological problems visiting either Pediatric or Dermatology ward/OPD/ Emergency of Hamdard University Hospital were included in the study, these cases were seen by pediatricians & confirmed by the dermatologist. The history was followed by a general physical and systemic examination and detailed skin examination. Relevant investigations were done including blood cultures. 77 cases below the age of 28 days (neonates) were seen during the study period, there were 26 cases of neonatal skin infections (33.76%), 13 cases of hereditary disorders (16.88%), 12 cases of nappy rash (15.58%), 10 cases of erythema toxicum neonatorum 9.8%), 8 cases of milia (10,38%) and 4 cases of erythema following phototherapy (5.19%). Pediatric dermatology deserves to be treated as a separate subspecialty requiring proper training. The close liaison between the pediatrician and the dermatologist will help in early prevention and treatment.

Key words: Pediatrics, neonatal dermatology

1. Introduction

Children suffer from different dermatological conditions and neonates form a special group as their skin is more susceptible to infections (1). Pediatric dermatology is an established subspecialty in number of countries; both pediatricians and dermatologist see a large number of pediatric dermatology cases (2). Neonatal dermatological conditions accounted for a large number of referrals (3,4).

Children being the major part of our population are often neglected; especially the neonates with skin problems are not taken seriously by the community. Bacterial skin infection leads to neonatal sepsis and nearly 1.6 million children die due to neonatal sepsis each year.

2. Materials and methods

This study was conducted from January 2008 to December 2008 at Department of Pediatrics, Hamdard University Hospital, an undergraduate teaching hospital, situated in the heart of city M.A. Jinnah Road, Karachi. Department of Pediatrics provides outpatient facilities on six days a week, and emergency covers including aneonatal care round the clock. Department has 25 beds and neonatal intensive care unit.

All children under the age of 28 days with skin problems visiting either Pediatric, Dermatology ward/ OPD/ Emergency of Hamdard University Hospital were included in the study. The history was followed by a complete physical, systemic examination and detailed skin examination. Relevant investigations including blood cultures were also done. Exclusion Criteria: Neonates on ventilator.

3. Results

A total of 830 neonates were examined, 539 males (65%) and 291 females (35%). There were 77 neonates with skin lesions (9.27 %); 26 cases of neonatal skin infections (33.76%) (Table 1). There were 12 cases of nappy rash (15.58%), 10 cases of phototherapy induced erythema toxicum neonatorum (12.98%), 8 cases of milia (10.38%), 4 cases of erythema following phototherapy (19%), 2 cases of seborrheic dermatitis and 1 case of neonatal acne (Table 2). There were 13 cases of hereditary disorders (16.88%): Mongolian spots 8 cases, 2 cases of Collodian baby, 1 case of Harlequin fetus and 1case of epidermolysis bullosa (Table 3).

*Correspondence: Dr. Muhammad Javed
Department of Pediatrics
Hamdard University Hospital
M.A. jinnah Road
Karachi, Pakistan
Tel.: 32788161 -2 ; Fax: 32784935;
E-mail: drjaveddow75@hotmail.com

Table 1. Bacterial Infections

Dermatological condition	No	Percentage
Neonatal bacterial infections	25	32.46%
Scalded Skin Syndrome	1	1.29 %

Table 2. Other conditions

Dermatological condition	No	Percentage
Nappy rash	12	15.58%
Erythema toxicum neonatorum	10	12.98%
Milia	8	10.38%
Phototherapy induced erythema	4	5.19%
Seborrheic Dermatitis	2	2.59%
Sucking blister	1	1.29%
Neonatal acne	1	1.29%

Table 3. Hereditary conditions

Dermatological condition	No	Percentage
Mongolian spots	8	10.38%
Collodian baby	2	2.59%
Harlequin fetus	1	1.29%
Epidermolysis bullosa	1	1.29%
Macular melanosis of the newborn	1	1.29%

4. Discussion

Neonates form a special group, there is hardly any local study from Pakistan on exclusively Neonatal Pediatric Dermatology. Benton et al. (5) have not reported any cases of neonatal skin lesion in a twenty five year study. Maqbool and Razzaq (6) and Zahoorullah et al. (7) have also not reported any case. 9.27% of neonates had skin lesions in this study, a much smaller number than other studies (8-12), maximum numbers of cases in this study were due to skin infections (32.46%) (Table 1). A study from India by Sardana et al. (13) has shown similar results (47.15%).

In this study, 15,58% of neonates had nappy rash (Table 2) Ferahbas et al. (14) reported 2% cases of nappy rash. This may be due to financial reasons as our mothers do not change nappies as frequently as required due to financial reasons leading to prolonged stool contact resulting in nappy rash. 12.98% of neonates presented with erythema toxicum neonatorum. Morgan et al. (15) reported 30.9% of neonates with the same condition. 10.38% of neonates had Mongolian spots in this study. Ferahbas et al. (14) reported 3.2 % of neonates with Mongolian spots. 10.38% of neonates had milia in this study. This is particularly important as our neonates were over-covered, 5.19% of neonates presented as erythema following phototherapy, there was one case of neonatal acne in this study. Alakloby et al. (16) reported 25 cases in one year. Staphylococcal scalded skin syndrome was diagnosed in one case and the blood culture confirmed the diagnosis. There was one case of Collodian baby and Harlequin fetus in this study (Table 3) similar to an other study (17).

The close liaison between the pediatrician and the dermatologist helps in early prevention and treatment and thus work for the overall better treatment of the pediatric patients. The overall management and intensive care of the patients is in the hands of the pediatricians, but the dermatologist definitely has the role in the diagnosis. The pediatrician and dermatologist must work hand in hand to manage pediatric dermatological conditions as early institution of treatment and observation may be life saving. Chemical burns induced by antiseptics and phototherapy induced erythema, needs special care and intervention by the removal of the offending agents and management results in dramatic improvement.

5. Conclusion

Pediatric dermatology deserves to be treated as a separate subspecialty requiring proper training and the close liaison between the pediatrician and the dermatologist. This helps in early prevention and treatment and thus works for the overall betterment of the pediatric patients.

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