

# Necessity of Teamwork for Paediatric Dermatologic Patients Visiting Pediatric Surgery

## Çocuk Cerrahisinde Muayene Olan Pediatrik Dermatoloji Hastaları İçin Takım Çalışmasının Gerekliliği

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### ABSTRACT

**Objective:** Pediatric surgery is one of the departments treating some pediatric dermatology diseases. In this study, experience of pediatric surgeons were assessed for skin diseases. In addition, the interaction between the pediatric surgery and other relevant sections were examined.

**Material and Methods:** Pediatric surgery documents between 2005 and 2011 were examined. Diagnoses, consultations, and changes in diagnosis were evaluated for dermatologic problems of the patients.

**Results:** Three hundred and fifty-two pediatric surgical patients were examined due to dermatologic complaints. Seventy-five patients were consulted eighty times totally to other clinics. four patients were consulted twice and one patient was consulted three times. The diagnosis of 68 patients was changed after examination in different clinics.

**Conclusion:** Clinical disciplines for the integration of pediatric visits are rarely evaluated in dermatological patients. In our opinion, these evaluations may assist in selection of pediatric dermatologic units and medical members. Clinics of possible integrations between the common treatments for these patients may be important to design.

**Key Words:** Children, Dermatology, Pediatric dermatology, Pediatric surgery, Team work

### ÖZET

**Amaç:** Pediatrik dermatoloji hastalıklarının tedavi edildiği bölümlerden biri de pediatrik cerrahidir. Bu çalışmada, pediatrik cerrahların deri hastalıkları için olan tecrübeleri değerlendirilmiştir. Ayrıca, pediatrik cerrahi ve diğer ilgili bölümlerin karşılıklı ilişkileri de araştırılmıştır.

**Gereç ve Yöntemler:** 2005- 2011 yıllarına ait pediatrik cerrahinin dokümanları incelenmiştir. Teşhisler, konsültasyonları ve teşhislerde olan değişiklikler hastalar dermatolojik problemleri açısından değerlendirilmiştir.

**Bulgular:** 352 pediatrik cerrahi hastaları dermatolojik şikayetler nedeniyle muayene edildi. Bu hastaların 72'si toplamda 80 defa diğer branşlara konsulte edildi. Dört hasta 2'şer kere, 1 hasta 3 kez konsulte edildi. Bu hastaların 68'inin tanısı konsültasyonlar sonrasında değişti.

**Sonuç:** Dermatolojik hastalıklar açısından pediatrik muayenelerin entegrasyonu nadiren değerlendirilmiş bir durumdur. Bizim düşüncemize göre, bu değerlendirmeler pediatrik dermatoloji ünitelerinin ve bu üniteleri oluşturacak hekimlerin belirlenmesine yardımcı olabilir. Ortak tedavilerin yapılabilmesi açısından yardımcı olabilecek kliniklerinin entegrasyonun önemli olduğunu düşünmekteyiz.

**Anahtar Sözcükler:** Çocuk, Dermatoloji, Pediatrik dermatoloji, Pediatrik cerrahi, Takım çalışması

### INTRODUCTION

Dermatology and plastic surgery are responsible as the main departments in terms of visits for paediatric dermatology patients. In addition, other departments, such as pediatric surgery, examine some pediatric dermatology patients. Although the

departments have common interests, cooperation with these departments for pediatric dermatology has not been studied before. As an expanding branch, treatments for pediatric dermatology diseases may degrade because of the disorganization among disciplines. This process will reduce the number of attendance as a result of patient and family dissatisfaction.

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Literature about different skin diseases can be easily found. In contrast to this, there are a little published data for the medical teams integrations for pediatric dermatology. Main reason for this is the weakness of the algorithm among the departments in hospitals. Clinic of pediatric dermatology can be structured as an indispensable unit in hospitals. In our opinion, the importance of the relevant branches for pediatric dermatology units must be determined, firstly. These determinations will help to find out teamwork curriculum and board members of these units. To do this, the authors need to publish their own experiences to demonstrate the effectiveness of their branches on pediatric dermatology.

Dermatologic diseases in pediatric surgery training is available, however, are insufficient during education and training. For all these reasons, paediatric surgery in a retrospective study was designed to determine the interaction with other departments. Paediatric surgery has an important potential to be a part of the team.

## MATERIAL and METHODS

Pediatric surgery documents of Kecioren Education Hospital between 2005 and 2011 were examined. Diagnoses, consultations, and diagnostic changes were evaluated. Diagnose were made by using ICD-10 coding system. Literature-based discussion is made and our proposal is formulated within this discussion.

## RESULTS

Three hundred and fifty two patients were examined for dermal diseases in our clinic (Table I). Seventy-five patients were consulted to various departments, a total of eighty times. These clinics were dermatology, plastic surgery, general surgery, orthopaedics and paediatrics. Seventy-one patients were examined at a clinic; four patients were examined in two clinics and one in three clinics (Table II). The diagnosis was changed after examination of 68 patients in different clinics (Table III).

**Table I:** Distribution of the patient visits according to visits and consultations. 2nd and 3rd consultations are showing multiple examinations of some patients.

Diagnose	No. Patients	1 <sup>st</sup> Cons.	2 <sup>nd</sup> Cons.	3 <sup>rd</sup> Cons.
Dermal abscess, furuncles and carbuncles	71	6	0	0
Nail deformities	129	44	3	1
Dermal benign neoplasms	67	7	1	0
Congenital malformations of dermal conjoint	8	1	0	0
Disorders of dermis and subcutaneous tissue	31	11	0	0
Allergic contact dermatitis, dependent to foods	2	1	0	0
Viral warts	3	0	0	0
Dermal Foreign bodies	7	0	0	0
Local infections of dermis and subcutaneous tissue	34	5	0	0
<b>Total</b>	<b>352</b>	<b>75</b>	<b>4</b>	<b>1</b>

**Table II:** Distribution of the consultations.

Diagnose	Cons.	Derma.	Plas. Srg	Orthop	Gen.Srg	Paediatr
Dermal abscess, furuncles and carbuncles	6	3	0	1	1	1
Nail deformities	44	21	11	10	2	0
Dermal benign neoplasms	7	3	5	1	0	0
Congenital malformations of dermal conjoint	1	1	0	0	0	0
Disorders of dermis and subcutaneous tissue	11	5	6	0	0	0
Allergic contact dermatitis, dependent to foods	1	1	0	0	0	0
Viral warts	0	0	0	0	0	0
Dermal Foreign bodies	0	0	0	0	0	0
Local infections of dermis and subcutaneous tissue	5	3	0	0	1	1
<b>Total</b>	<b>75</b>	<b>36</b>	<b>21</b>	<b>12</b>	<b>4</b>	<b>2</b>

**Table III:** Diagnose changes and numbers of the changes after consultations are documented.

Diagnose	Cons.	Diag. Change	No. Patients	Total
<b>Dermal abscess, furuncles and carbuncles</b>	6	Cellulitis	2	6
		Hyperpigmentation	1	
		Contact dermatitis	1	
		Herpes Simplex	1	
		Pilonidal sinus	1	
<b>Nail deformities</b>	44	Pyoderma	18	44
		Tineaunguim	20	
		Xerosis cutis	6	
<b>Dermal benign neoplasms</b>	7	Atopic dermatitis	1	5
		Synovial cysts	1	
		Melanocytic nevus	3	
<b>Congenital malformations of dermal conjoint</b>	1	Xerosis Cutis	1	1
<b>Disorders of dermis and subcutaneous tissue</b>	11	Contact dermatitis	3	6
		Atopic dermatitis	1	
		Xerosis Cutis	1	
		Keloid	1	
<b>Allergic contact dermatitis, dependent to foods</b>	1	Xerosis Cutis	1	1
<b>Viral warts</b>	0	0	0	0
<b>Dermal Foreign bodies</b>	0	0	0	0
<b>Local infections of dermis and subcutaneous tissue</b>	5	Nail Deformity	1	5
		Dermatitis	2	
		Erythema Intertrigo	2	
<b>Total</b>	75		68	68

## DISCUSSION

Skin disorders are frequent problems in paediatric age group (1). Six-24% of paediatric clinics patients suffers from dermatologic problems (1,2). Dermatology, plastic surgery, paediatric surgery and some others also examine skin diseases of children. Therefore, exact percentage of paediatric skin diseases is not reflected by only paediatric clinics data. However, in general, clinics relevant to children have published few data for paediatric dermal diseases experiences. All data, collected on children's skin diseases from different departments, starting from paediatric surgery, may provide a functional paediatric dermatology department. In this study, we document our patients diagnose and decision-making during their processes.

Some patients are examined in paediatric and dermatology clinics (3). In most western countries, one-third of paediatric dermatology patients have been treated in paediatric clinics (3). Six-year period, 352 patients were examined for skin diseases in our clinic. As the total number of patients in this period is 9.958, our prevalence for dermatologic disease is 3.5%. Paediatrics clinics have 6-24% potential for dermal diseases (1,2). All the groups of diseases that were referred to

our department might need surgical treatment (4-10). So, the potential for skin disorders in paediatric surgery may be less than paediatrics. We did not find analysis for dermal diseases of some other clinics in the literature. Therefore, our finding can't be compared to them.

Internal medicine, surgery, gynaecology, ear-nose-throat, ophthalmology and rheumatology consulted paediatric patients to dermatology clinics (3). In literature, to our knowledge, there is no published data about paediatric surgery patients consulted to dermatology clinics. Seventy-five of 352 patients were consulted to other departments. These departments were dermatology, plastic surgery, orthopaedics, general surgery and paediatrics. Dermatology consultations were 36 patients (10.5%). In our whole paediatric surgery population, the dermatology consultation percentage was 0.36. We also did not find literature data about dermatology consultations for departments. Wenk et al. (3) reported their analysis for dermatology consultation rates among clinics, but this finding is not useful for analysis of other departments. So, our data is a new parameter for the literature. This data show that paediatric surgery does not have high-level impact at paediatric dermatology. More data will reveal at least our part in paediatric dermatology.

Thirty-nine patients were consulted by plastic surgery, general surgery, orthopaedics and paediatrics as shown in Table II. This parameter shows the possible collaborations among these departments. We do not know how this issue cared for by other departments. Also, there is no literature on this subject. The reasons of consultations may be another matter of discussion. In our practice, we did not record the reasons of these consultations. Practically, different departments consultations are made for the skin diseases effecting neighbour tissues or coexisting disease, which are associated with diseases involving their areas of expertise.

Additionally, another finding of our study is the changes in the diagnosis of the consulted most patients. Seventy-five patients were consulted to other departments, as shown in Table III. Diagnose were changed for sixty-eight of these patients. Diagnosis of nail diseases are the most changed diseases among these patients. We understand that the finding is a caution for our practices. Also this finding also shows the importance of consultations and for collaborations. In addition, diagnoses of other diseases often changed after consultations. Therefore, we believe it is accurate indications for consultations.

Second and third consultations as shown in Table I are minor data revealed in our study. Four consultations were made for the second time and one consultation were made for third time. This is due to multiple advisory departments for final decisions had hesitations. Although the sample was small for more than one consultation, we believe that the issue was a reflection of the teamwork and participation. This small group, in our opinion, is one of the proofs for the integration requirements.

In our clinic, 277 dermatology patients were treated without consultation. Our clinic is a second stage paediatric surgery department with acceptance of nearly 2.000 patients per year. Therefore, other paediatric surgery clinics may be expected to be more experienced about patients with skin problems. Data evaluations of these departments may prove our findings.

In conclusion, "Paediatric Dermatology" is promising a future. However, paediatric dermatology in our country, yet, is far from being a complete organization. To our knowledge, the status of worldwide paediatric dermatology practices has not been

reported. Therefore, we have not exactly known the progress of paediatric dermatology in other countries. Paediatric surgeons, as some other departments, can treat some skin diseases of children. Therefore, we think that our department is related to paediatric dermatology department. In another perspective, a paediatric dermatology unit will also ease things for paediatric surgery. In our opinion, the slow development of paediatric dermatology is due to the lack of cooperation between the relevant units. We propose to analyse carefully the roles of the various departments for skin diseases. This will be important to build active and worldwide paediatric dermatology units.

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