

# Infantile Hemangiomas: Epidemiological-Clinical Profile and Therapeutic Difficulties in Côte d'Ivoire

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## Abstract

**Introduction:** Infantile haemangiomas are the most common benign vascular tumours of infants. In Western countries, they have been the subject of several studies. However, in sub-Saharan Africa, few works are devoted to them. We initiated this work to contribute to a better knowledge of infantile haemangiomas in our work context. **Material and Methods:** This is a cross-sectional descriptive and analytical study carried out in the Dermatology Department of C.H.U. Treichville from November 2014 to December 2016; All children with infantile haemangiomas have been taken into account, in the study. **Results:** We counted 42 cases of haemangiomas on 4600 paediatric dermatoses, a prevalence of 0.9%. The sex ratio was 0.35. The age of our patients ranged from 2 days to 5 years. 76.2% of patients consulted after the age of 2 months. 26.9% of patients were born premature. 54% of the haemangiomas started with an erythematous macula. 52.4% had a size between 1 and 3 cm. Superficial haemangiomas (52.38%) and mixed haemangiomas (42.85%) were the most common clinical forms. The ulcerated forms represented 9.5%. The lesions were preferentially located in the cervico-facial region (71.4%) and resulted in aesthetic prejudice in 47% of cases. 3 patients (7.14%) were treated with propranolol. 37 patients (88.1%) used self-medication using poultice. **Conclusion:** Infantile haemangiomas are infrequent in Côte d'Ivoire. They sit mainly in the cervico-facial area. The ulcerated forms are not negligible and they sometimes cause a significant aesthetic prejudice. Their management is sometimes difficult because of the unavailability of propranolol.

## Keywords

Haemangiomas, Children, Côte d'Ivoire

## 1. Introduction

Infantile haemangiomas are the most common benign vascular tumours of infants, and they develop in the first days of life. They are due to transient endothelial cell proliferation with neo-formed vessels [1]. Therapeutically, propranolol has revolutionized their management and greatly improved their prognosis. In Western countries, their physio-pathological, epidemiological, clinical and therapeutic aspects have been the subject of several studies [2]. However, in sub-Saharan Africa, few studies are devoted to this paediatric pathology. It was therefore appropriate for us to conduct this study at the Department of Dermatology-Venereology of the University Hospital Centre of Treichville in order to describe the epidemiological-clinical profile and list the therapeutic difficulties in Côte d'Ivoire.

## 2. Material and Methods

This is a cross-sectional descriptive and analytical study carried out in the Dermatology Department of C.H.U. Treichville from November 2014 to December 2016. Have been taken into account, all children with infantile haemangiomas were enrolled in the study. We provided detailed information about this study to all subjects and their consent to participation. The study was approved by the ethic committee of the hospital. Data from the study were collected on a survey card that included socio-demographic characteristics and clinical data such as the size of the haemangiomas, the location, the type and the aesthetic damage. The data was entered and analysed using Microsoft® Excel® 2010 software version 14.0.4760.1000. As for the analysis of the data, it was made using the software Epi Info 6.4d.

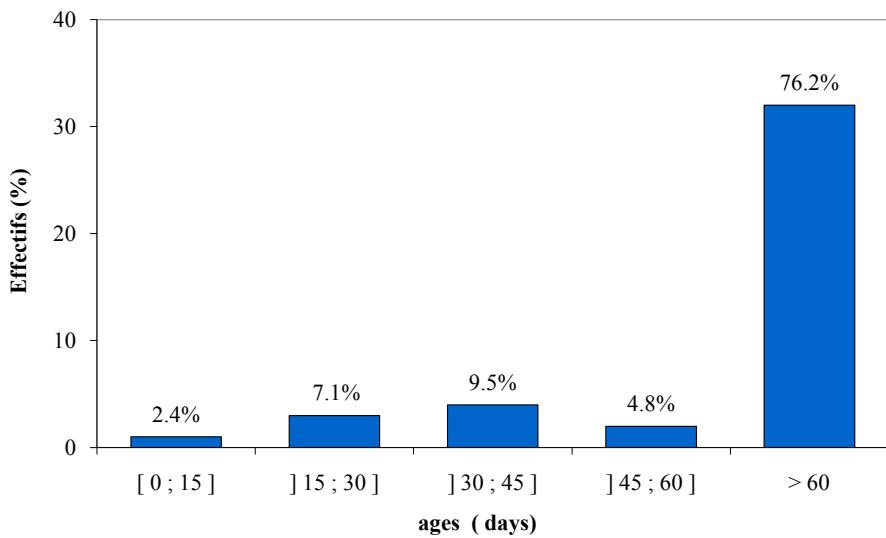
## 3. Results

### 3.1. At the Epidemiological Level

We counted 42 cases of haemangioma on 4600 paediatric dermatoses, with a prevalence of 0.9%. More than 4/5 of the patients came from Abidjan. The sex ratio was 0.35 or 3 girls for 1 boy. The age of our patients ranged from 2 days to 5 years but 76.2% of patients consulted after the age of 2 months (**Figure 1**). Fetal distress was the main risk factor. 13 patients (30.9%) were born by caesarean section and 11 babies (26.19%) were premature.

### 3.2. At the Clinically Level

The haemangioma appeared in more than half of the cases in the first 2 weeks of life. In more than 54% of the cases the haemangiomas started with an erythematous macula (**Table 1**). The size of the haemangiomas ranged from 1 to 7 cm in diameter but the majority (52.4%) had a size of 1-3 superficial haemangiomas (52.38%) and mixed haemangiomas (42.85%) were the most common clinical forms. The ulcerated forms accounted for 9.5% (**Figure 2**). The lesions were preferentially located in the cervico-facial region (71.4%) (**Figure 3**) and resulted

**Figure 1.** Distribution of patients by age (days).**Table 1.** Distribution of patients according to the elementary lesion.

Elementary lesion	Effective		Proportion (n × 100/42)
	(n)		
Erythematous macule	23		54.8%
Papule	8		19.0%
Pink macule	7		16.6%
Pigmented macule	3		7.1%
Blue macule	1		2.4%
Hypochromic macule	1		2.4%

**Figure 2.** Ulcereted infantile haemangioma.



**Figure 3.** Infantile haemangioma located on the lip and cheek.

in aesthetic damage in 47% of cases and functional damage in 9.5% of cases.

### 3.3. At the Therapeutic Level

3 patients (7.14%) were treated with propranolol. 12 patients (28.57%) received oral corticosteroid therapy. therapeutic abstention with regular follow-up was advised to other patients. Among all the patients 37 patients (88.1%) had used self-medication using poultice.

## 4. Discussion

During our study we were confronted with several difficulties. The study limitations about this research was the absence of a register of paediatric dermatology in the centre of dermatology; the limits of our study were also due to some difficult questioning of the parents.

We found 42 cases of infantile haemangiomas out of a total of 4600 paediatric dermatoses, a prevalence of 0.9%. Infant haemangiomas is an infrequent condition in dermatological practice in our region with a rate of around 1% [3]. 2/3 of our patients were female. In many studies, the female sex is a predisposing factor for infantile haemangiomas [4] [5]. More than 1/3 of the children were born by Caesarean section and 1/4 was born Prematurity. Physio-pathologically, the context of anterior or perinatal hypoxia is the main factor favouring infantile haemangiomas [6]. Clinically, superficial and mixed haemangiomas were the main forms. These 2 forms predominate in several African studies [7]. Ulceration is the most frequent complication it predominates at the peri-orificial level and the points of support very often responsible for pain. In our study, haemangiomas were mainly located in the head and neck (71.4%). These 2 areas represent a large area in small infants. They constitute points of pressure, therefore

less oxygenated zones, especially when the presentation is cephalic during delivery [8]. Nearly half of our patients had aesthetic damage this damage was mainly due to the infant-ciliary haemangiomas centro-facial and the peri-orificial haemangiomas including palpebral involving an occlusion of the eyelids and labials causing difficulties of suction [9].

Therapeutically, few of our patients have benefited from treatment with propranolol. This molecule has revolutionized the therapeutic management of severe forms of haemangioma in Europe [10]. But in Cote d'Ivoire side this drug is still unavailable. The geographical and financial inaccessibility make the treatment of severe forms of haemangioma very difficult in our country; requiring patients to self-medicate poultices sometimes sources of ulceration and infection.

## 5. Conclusion

Infantile hemangiomas are infrequent pathologies in Cote d'Ivoire. They sit mainly in the head and neck region and are dominated by superficial and mixed forms. The ulcerated forms are not negligible and they sometimes cause a significant aesthetic prejudice. Their management is sometimes difficult because of the unavailability and the financial inaccessibility of propranolol.

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