

Contributions of the TVC Medical Staff
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1	The dangers of a perivenous perfusion in the newborn	1
2	About a follow-up at TVC Medical of a rare case of foetal subdural hematoma in the 2nd trimester of pregnancy	2
3	About a case of spontaneous necrosis concerning a child of 2 years, 5 months: Purpura Fulminans?	3
4	The MERSH skin transplantation technique for wounds resulting from chronic venous insufficiency (MBASU).....	4
5	The first hundred interventions using endovenous radiofrequency ablation in the treatment of chronic venous insufficiency in Central Africa	5
6	The difficulties encountered in setting up a specialized hospital center in the DRC: the example of TVC MEDICAL	6

1 The dangers of a perivenous perfusion in the newborn

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1.1 Summary

Extravasation is a major complication in the treatment of new-borns. Without high standards in the follow-up, these lesions can induce serious functional, aesthetic and psychological sequelae. The prevention and treatment of its occurrence are nonetheless possible: adequate protocols and continuous training make it possible to reduce their prevalence and to mitigate the consequences.

1.2 Keywords

Perivenous perfusion, Extravasation, Skin necrosis

1.3 Abstract

1.3.1 Context and objectives

In neonatology, 0.5 to 6% of new-borns are victim of cutaneous consequences related to extravasation of perfusion products. These disorders range from simple inflammation to cutaneous necrosis.

In the operational hospital setting of the TVC Medical hospital in Kinshasa, the author was confronted with a case of extravasation. A successful treatment with a multidisciplinary approach has been achieved (see <https://www.tvcmedical.com/post/extravasation-vacuum-assisted-closure>).

1.3.2 Methods

Based on this successfully treated case, it was possible to develop a protocol of care for the surgical, medical and nursing teams. A continuing education program has also been developed to reduce the prevalence of this complication.

1.3.3 Results

The results were obtained by combining a surgical approach complemented by negative pressure treatment and appropriate wound care.

1.3.4 Conclusion

Extravasation is a major complication in the treatment of new-born wounds. The prevention of its occurrence by the development of clear protocols and continuous training will reduce the prevalence or, where appropriate, the duration of the treatment.

2 About a follow-up at TVC Medical of a rare case of foetal subdural hematoma in the 2nd trimester of pregnancy

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2.1 Summary

The probable hypothesis of a subdural fluid collection objectified through ultrasound is that of a subdural hematoma. This situation often results in foetal death or birth with irreversible neurological sequelae. The foetal SDH is very rare and little known to the examiners, the ultrasound diagnosis is delicate, and the prognosis is reserved.

2.2 Keywords

Foetal subdural hematoma, Neurological sequelae, Ethics, Economy

2.3 Abstract

2.3.1 Context and objectives

The case of a 19-year-old primiparous and primigravity pregnant woman carrying a 24-week foetal mono-foetal pregnancy, in cephalic presentation with an echogenic oval image on the periphery of the skull exerting a mass effect on the structures brain.

The presentation is about demonstrating the difficulty of care in an ethical, religious and socio-economic context and confronting this situation with the scarcity of existing scientific data dealing with this type of case.

2.3.2 Methods

The weekly ultrasound follow-up at TVC Medical was confronted with that of operators from other centres of the Kinshasa City-Province for confirmation of diagnosis. A privileged psychological support of the patient was set up in view of the difficulties encountered.

2.3.3 Results

The follow-up revealed a gradual resorption of the hematoma, from 65 mm to 26 mm, which is why the multidisciplinary team considered allowing the pregnancy to evolve with all the usual reserves: very explicit explanations to the family in their language maternal risk, namely that of a foetal death or permanent disability. This regular, close follow-up will continue for several months after birth.

2.3.4 Conclusion

Such cases present a significant maternal-foetal risk. They involve the fields of medicine, ethics, sociology and law. What would be the best attitude to adopt in the current state of legislation in the DRC?

3 About a case of spontaneous necrosis concerning a child of 2 years, 5 months: Purpura Fulminans?

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3.1 Summary

We report about the case of a 2-year, 5-month-old male infant who developed multiple spontaneous necrotic lesions in the upper and lower limbs associated with black abdominal lesions and fever.

The hypothesis of Purpura Fulminans is retained, this condition being a vital emergency rarely diagnosed correctly in our countries. It also requires early and multidisciplinary care management to prevent skin damage of an irreversible nature.

3.2 Keywords

Purpura Fulminans, Skin necrosis, Amputation

3.3 Abstract

3.3.1 Context and objectives

A 2-year, 5-month-old male infant who develops multiple necrotic lesions in the upper and lower limbs is initially treated in two hospital centres with a non-targeted broad-spectrum antibiotic therapy. The infant is subsequently presented to TVC Medical because of a pejorative development consisting of worsening skin necrosis over a period of 3 weeks with the complication of dry gangrene at the extremities on both lower limbs.

The goal was to identify the germ for control of infection and sacrifice by amputating necrotic limbs following the "life before legacy" adage.

3.3.2 Methods

The physical examination reveals total dry necrosis of the left foot and partial necrosis of the toes of the right foot. A bacteriological assessment with smear is performed as well as a blood culture associated with a NFS and CRP laboratory.

3.3.3 Results

The results revealed an important inflammatory syndrome associated with leucocytosis. In view of these elements, we hypothesized a Purpura Fulminans of an undetected germ.

3.3.4 Conclusion

The bacteriological examination at the National Institute of Biomedical Research (INRB) did not identify any germs despite the stabilization of sepsis. The family required a hospital discharge by refusing amputation of both necrotic ends. She preferred to take refuge in her church on the advice of the pastor. To this day, the child is lost sight of.

4 The MERSH skin transplantation technique for wounds resulting from chronic venous insufficiency (MBASU)

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4.1 Summary

At TVC Medical, 17 skin transplants were performed over a period of 9 months in 2019. A rigorous protocol was derived from this expertise in order to optimally treat chronic ulcers with more than 10 cm² skin loss. This approach, combined with radiofrequency (RFA) and negative pressure (VAC) treatments, significantly shortens the healing time.

4.2 Keywords

Skin graft, Chronic ulcer, Radiofrequency ablation (RFA), Vacuum assisted closure (VAC)

4.3 Abstract

4.3.1 Context and objectives

For ulcers over 5 cm², TVC Medical practices the scheme "Negative pressure treatment - Skin graft" after treatment of the cause by endovenous ablation via radiofrequency (RFA).

The goal of this approach is to accelerate healing and to reduce bacterial contamination. It makes it possible to control the financial cost and to confer an acceptable quality of life to the patient.

4.3.2 Methods

The protocol is based on bacteriological sampling, causal treatment, negative pressure treatment, MERSH grafting and wound care.

4.3.3 Results

The length of hospitalization after skin grafting is, on average, 14 to 28 days. Punctual wounds are enough to achieve complete healing. Some cases of recidivism have been reported, mostly due to a combination of non-compliance and economic factors.

4.3.4 Conclusion

Before attempting a skin transplant, TVC Medical recommends following strict rules: identifying and eliminating the cause, preparing the site with a bacteriological sample to identify the potential contaminant germ related to the tropical context, implementing treatment with negative pressure and, finally, proceed to a skin graft according to the MERSH technique using an electrical dermatome and a skin expander.

5 The first hundred interventions using endovenous radiofrequency ablation in the treatment of chronic venous insufficiency in Central Africa

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5.1 Summary

We report our expertise related to the multidisciplinary treatment of the chronic venous insufficiency condition in the lower limbs at different stages of the CEAP classification. We present our approach used to treat its complicated form namely: the venous ulcer or "Non-infectious MBASU".

Over a retrospective period of 2 years, it has been established that 80% of CEAP cases considered as "non-infectious MBASU" have been successfully treated with endovenous radiofrequency surgery.

5.2 Keywords

MBASU, Treatment of chronic venous insufficiency, CEAP

5.3 Abstract

5.3.1 Context and objectives

Since 2016 in the DRC, we practice the multidisciplinary treatment of the chronic venous insufficiency patient at different stages of the CEAP classification.

Over a 24-month period (2017-19), we treated 135 members with chronic venous insufficiency in the lower limbs and, in particular, its complicated form namely the venous ulcer: "the non-infectious MBASU". The cases treated are divided into :

CEAP 1: 5% - CEAP 2: 15% - CEAP 3: 20% CEAP 4a-b: 15% - CEAP 5: 6% - CEAP 6: 39%

Considering the cases CEAP 3 (oedema), CEAP 4a-b (dermatitis), CEAP 5 (healed ulcer) and CEAP 6 (active ulcer), it is thus established that 80% of the "MBASU" cases were treated successfully via RFA. Moreover, in 95% of the treated limbs, the anaesthesia was "local-regional".

This results in the need for a specialized vascular pathology centre in Kinshasa for better management with a focus on the differential diagnosis of ulcers and trophic disorders of arterial and / or venous causes. In fact, contrary to local preconceptions, the most common cause of lower extremity ulcers is a vascular and non-infectious origin alone, which is usually superinfection on compromised soil.

5.3.2 Methods

Among all the measures to be taken, it emerges that a better medical and paramedical training in vascular pathology is imperative. We advocate a global approach to cardiovascular diseases (hypertension, stroke, TVP-EP, AOMI, VASCULAR TRAUMA, ...) which naturally calls for a collaboration with other specialists in the cardiovascular discipline. The aim is to reduce the number of MBASU cases by raising awareness and informing the public.

5.3.3 Results

Over a period of three years, despite limited resources based exclusively on own funds, TVC Medical has achieved spectacular results in the treatment of venous insufficiency in Central Africa.

5.3.4 Conclusion

It is now time to amplify the pioneering role of TVC Medical. This presentation is an opportunity to elaborate about suggested recommendations.

6 The difficulties encountered in setting up a specialized hospital center in the DRC: the example of TVC MEDICAL

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6.1 Summary

TVC Medical is a private hospital built in 2018 in Kinshasa. Operating exclusively with its own funds, it specializes in endovenous surgery for chronic venous insufficiency: the "MBASU". It provides work for nearly 70 inhabitants of the Kinshasa City-Province and provides advanced training for medical and nursing staff. We expose the difficulties encountered in the implementation and management of such a center in the DRC

6.2 Keywords

Private hospital, Administration, Difficulties, Improving the situation

6.3 Abstract

6.3.1 Context and objectives

In the process of setting up its private hospital centre, TVC Medical followed the different steps imposed: Recognition of the Ministries of Public Health & the Ministry of Provincial Health, Justice, Economy, Plan, Health 'Environment, ...

Several difficulties were encountered in addition: problems of access to competent authorities and unnecessary red tape by civil servants: snel, regiedeso, garbage collectors, environment, anr, dgda, dgdk etc.

Based on this experience in contact with the realities of the field, TVC Medical proposes the approaches focused on the following two methods.

6.3.2 Methods

- Proposing to the State Authorities: to create a "GS - DRC": a Health Counter in DR Congo
- Participating in "Private -Public" cooperation initiatives: to formulate concrete proposals gathered from terrain experience, to amplify the development of a "RCP - DRC": a network of private clinics in DR Congo

6.3.3 Results

These steps constitute a concrete contribution to help achieve the five-year goal: "CSU - Universal Health Coverage". They will be developed in detail in this presentation.

6.3.4 Conclusion

TVC Medical, based on the experience gained, proposes two flagship measures that can contribute to the development of a truly accessible medicine for all in the DRC as part of the Five-Year Plan for Universal Health Coverage.