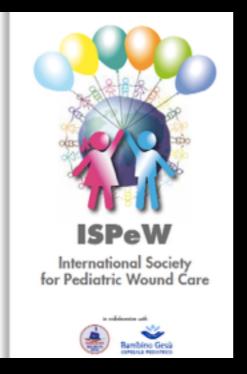
Second
International
Meeting

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ROME, Italy

Pontifical Theological Faculty St. Bonaventura Pontifical Athenaeum in Rome, established in 1587





# Buruli ulcer (UB) in children treated with Ozone Therapy and Hyperoil. A new horizons in the topical treatment of BU.

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# Background

Ozone therapy (OT) is a cheap and effective treatment for Buruli Ulcers (BU) needing a specific equipment to produce ozone from oxygen (TO3A- Medica, Bologna, Italy).

Hyperoil™ is an original extract of hypericum flowers (Hypericum perforatum) and nimh oil (Azadirachta indica) produced by Ri.Mos, Mirandola-Italy, effective for tissue recovery, and complicated cutaneous ulcers with osteomyelitis.





labichella ML, BMJ CR 2013 Bertolotti A. et al. BMJ CR 2013 labichella ML. et al, Austin J of Clinical CR 2014 labichella ML. BJMMR 2014 labichella ML. et al, Angiologiè 2014 *in press* 

## Method

InterMed onlus had treated with OT 150 children (age range 4-12 yrs) with chronic (age >2 months) Buruli ulcer (BU), from 2007 to 2013 in Ivory Coast and Benin.

Helios Med onlus treated with OT and Hyperoil gauze gel 28 children (age range 4-8 yrs) with chronic (legs) and 4 with acute BU (age <2 months - 1 at arm, 1 at head and 2 at legs) from 2011 to 2013 in Benin and D.R. Congo.













#### BURULI ULCER OZONE TREATMENT

OT was administered topically positioning a bag around the lesion, insufflating an O2-O3 mixture having an O3 concentration of 15-20 µg/ml.

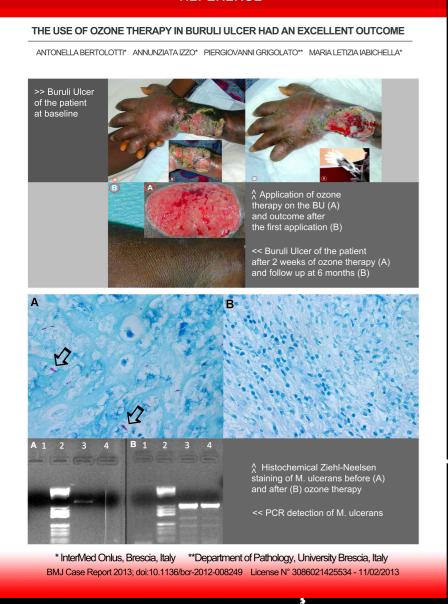
The inflated bag was sealed just above the lesion to avoid gas leakage. Then, the bag was positioned to let the gas mixture contacting the ulcer wound for about 10-15 minutes.

the leg is inserted into a bag the tube is positioned in closed b completely inflated the bag is removed outside and the ulcer is wrapped in gauze

When the bag was removed, the wound was covered usually applying sterile gauze or was treated with Hyeproil gauze gel, too, positioned with a fixing bandage.

This procedure was repeated three times a week to stimulate BU debridement and healing.

#### REFERENCE



# Results chronic BU treated with OT

About 50% of 150 chronic BU treated with OT

has completely recovered in 4/6 weeks and about 30% recovered in 4/6 months.

The remaining 20% dropped out treatment mainly for cultural or logistic issues.







### Results

treated with OT and Hyperoil gauze gel

26 of the 28 children (2 dropped out) with chronic BU treated with OT and Hyperoil gauze gel rapidly improved and fully recovered after 4-5 weeks

while the 4 children with acute BU showed a rapid improvement since the 1<sup>st</sup> week and fully recovered within 2 months







# CONCLUSION

The encouraging outcome observed in patients with chronic and new BUs treated with OT and Hyperoil could suggest a new cheap therapeutic option for this already difficult-to-treat illness.













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