Surgical Reconstruction of Northern Uganda War Victims.

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Background: Aid groups estimate that since 1086 when the war conflicts in Northern Uganda started, over 30,000 people have died in the insurgency and over 20,000 people have remained maimed. Arising from the conflict, innocent civilians have had their limbs, lips, eyes, ears, noses, breasts, fingers and toes cut off.
Patients and Methods: Between 2004 and 2005, a total of 34 victims of the Northern Uganda war, underwent reconstructive surgery. Most of the patients were treated from the local hospitals of Lira, Gulu and Kitgum.
Results: Between 2004 and 2006, the Plastic Surgery team of Mulago hospital rehabilitated 34 victims of the northern war. Of these 23 were females and 11 were males. Most of these people had suffered severe disfigurements which necessitated multiple staged reconstructive procedures on them. The majority of the reconstructive operations were on the lips despite the fact that many victims had also suffered from mutilation of other body parts.
Conclusion: Effects of the insurgency on individuals, families and communities included:

- **Increased burden on health care delivery**
- **Hospital capacity overwhelmed with few doctors and nurses available**
- **Increased number of traumatised people**
- **Increased number of war causalities**
- **Population maimed with body parts cut off**
- **Increased dependency of local population on hand outs from government and relief agencies.**

Hence the need to strive for peaceful resolution of the Northern Uganda war conflict.

Introduction

Since 1986, the Northern districts of Uganda have experienced a vicious and destructive war between the Uganda Government army and the various fighting groups that included the Holy Spirit Mobile Forces (Lakwena group), West Nile Bank Front (WNBF), Uganda National Rescue Front (UNRF), the Uganda Peoples' Army (UPA) and currently the Lord's Resistance Army (LRA), led by Joseph Kony since around 1990.

The conflict has resulted in gross violation of human rights and suffering to the people resident in the affected areas. This has been manifested in loss of human lives, and thousands of people that have been abducted, tortured and maimed. According to World Vision, since 1990, 1.5 million people have been displaced from their homes into camps; over 30,000 children have been abducted by rebels to serve as fighters, porters and sex slaves. Aid groups estimate over 30,000 people have died in the insurgency and over 20,000 people have remained maimed. As a result of the conflict, the socio-economic infrastructure has been destroyed and economic activity has seriously been disrupted by the insecurity.

As local and international pressure for peaceful resolution of the conflict mounts to bring the rebels out of the bush and end the war, there is need to promote the rehabilitation of citizens who have lost their limbs and other body parts so that they can lead normal lives and meet their livelihood needs to reduce total dependency on outside aid and hand outs from the government.

There have been a number of mitigation efforts by government and Non Government Organisations (NGO) both local and international, to rehabilitate the people affected by the war. Most of these efforts have focused mainly on socio-economic and psycho-social rehabilitation which are highly recommendable. However, there has not been much effort in the physical rehabilitation of those

who have been maimed and lost function of body parts due to war injuries.

Arising from the conflict, people have lost limbs, lips, eyes, ears, noses, breasts, fingers and toes which are basic to enhance their functioning as

human beings. As a result, the people who have been maimed are suffering mental and psychological torture as they are being stigmatised in the community and discriminated against at their place of work. The majority have no gainful employment as a result of the missing body parts and have resorted to living on handouts from the government and relief organisations.

It was with such background that a programme was initiated to physically rehabilitate the war victims through reconstructive surgery, that is, by restoring the missing body parts both anatomically and functionally so that these people could fit well in the community and return to gainful employment.

Patients and Methods

Between 2004 and 2005, a total of 34 patients; victims of the Northern Uganda war, under went reconstructive surgery. Most of the patients were treated from hospitals near their homes that is Lira and Gulu Regional Hospitals and Kitgum Hospital. The Government through Ministry of Health and NGOs mobilised and facilitated these reconstructive missions. Some of the patients because of the complicity of their deformities had to be transported and treated from Mulago National Referral Hospital. Most of the patients were treated at a later date from the time they sustained their injuries although some of them were treated in the early or acute phase from Lira regional Referral hospital facilitated by Ministry of Health. Of the 34 patients treated 23 were females and 11 were males. The ages ranged from 4 months to 60 years.

The majority of patients sustained mutilations of the lips (upper, lower or both lips), other body parts injured included ; noses, ears, breasts, hands, and feet. Some unfortunate victims had multiple body parts mutilated. Patients reported that rebels cut off their body parts to remind other Ugandans that the LRA was in control of the north, others were seen as sympathisers to the government and so were being punished for that so that others would learn not to collaborate with government forces.

Multiple staged reconstruction using different flaps was often used as indicated in the table below.

Case reports

Case report 1

A.H a 4 month old child got injured when the grass thatched hut she was sleeping in got blazed by LRA rebels. She sustained deep burns involving the right lower limb. At the time when the Plastic Surgery team saw her, she had a post burn contracture involving the knee joint. Contracture release was done by the V-Y technique. She healed well without any complications. Pre and Post operative pictures fig.1

Case report 2

A.B a 25-years old female whose ears, nose, upper and lower lips were cut off. At the time she was 6 months pregnant. Her husband was killed during the raid. Reconstruction was staged. Upper and lower lip reconstruction was achieved by a modified Bernard-Burow cheek advancement technique. Three months later the nose was reconstructed in two stages by a forehead flap. At the same time the microstomia resulting from the previous operation on the lips was corrected by a Converse commissuroplasty technique. Fig. 2 shows the patient's pre operation picture and the result 1 week after last stage of reconstruction. Further reconstruction of the alars and also the ears will be necessary.

Case report 3

A.S a 35 year old female together with her husband and six others were attacked by rebels while looking for food . While the rest were killed, the rebels sliced off her lips and ears and left her as a reminder to other Ugandans that the LRA was in control of the north. Multiple staged reconstructions were done using Schuchardt technique and tongue flap for the lower lip.

Webster bilateral cheek advancement flaps with crescentic perialar excisions for the upper lip were performed. She will require reconstruction of her ears later. Fig. 3 show pre operation picture and the post operation picture 2 weeks after the last operation.

Figure 1. A.H. Burns

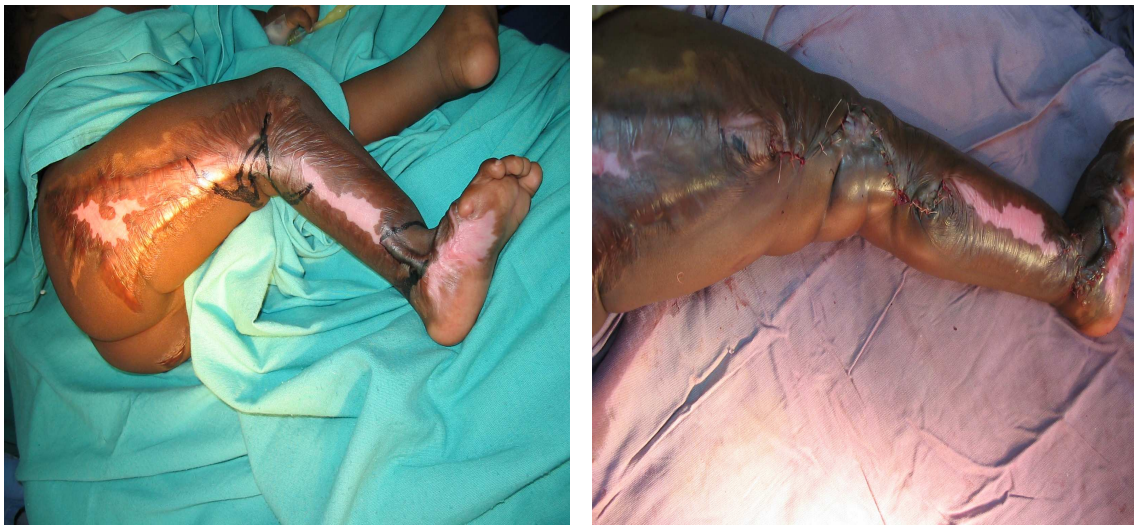

Fig.2 A.S.

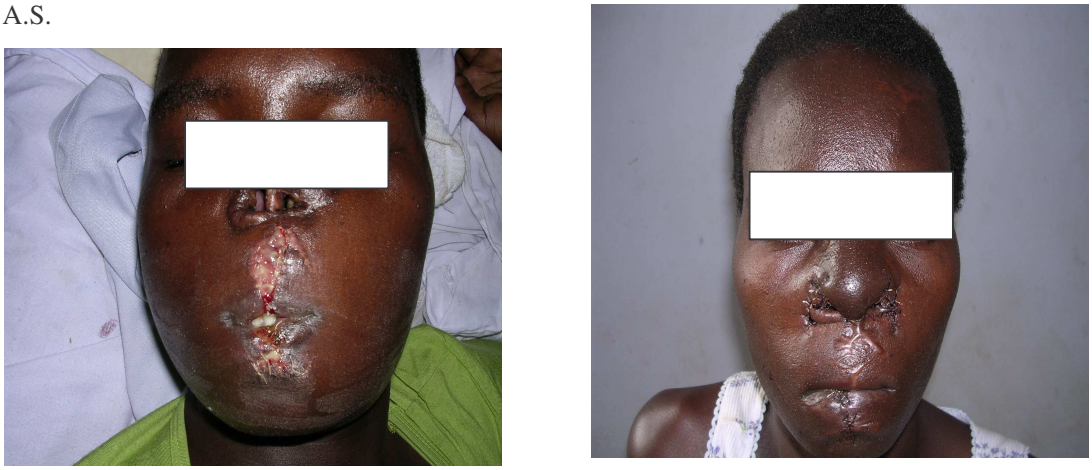

Fig.3

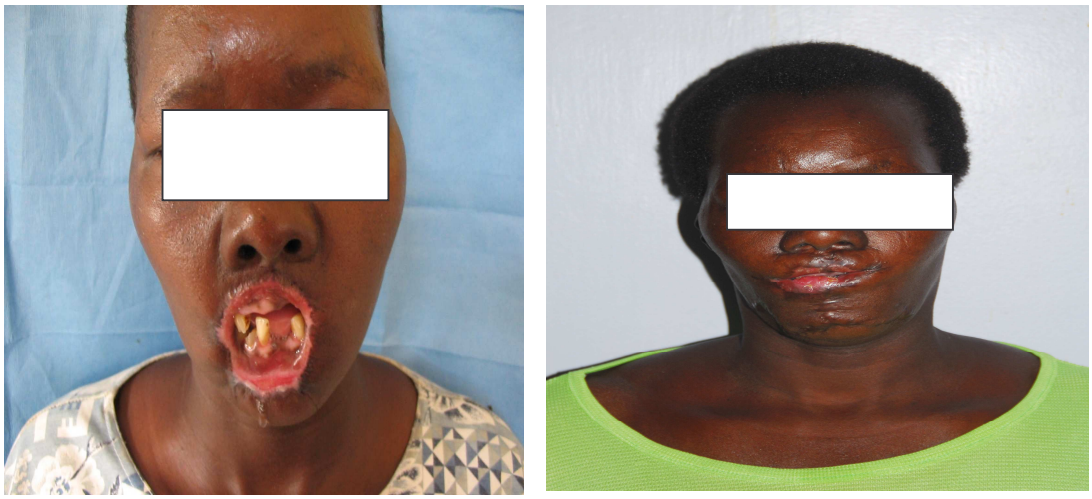

Table 1. Summary of Cases Treated.

Patient	Sex	Age	Diagnosis	Surgical Procedure
A.G	F	22yrs	Upperlip cut wounds	Direct closure
A.S	F	19yrs	Upperlip cut wounds	Direct closure
A.M	F	14yrs	Multiple Scalp cut wounds	Direct closure
A.S	F	20yrs	Upperlip cut wounds	Direct closure
A.M	F	12Yrs	Burns upper limb	Skin grafting
A.D	F	25yrs	Mutilated Upper and Lower lips	Modified Bernard-Burow cheek advancement cheiloplasty
A.E	F	35yrs	Upperlip cut wounds	Direct closure
A.S	F	26yrs	Upperlip cut wounds	Direct closure
A.A	F	30yrs	Burns upper limb, chest,abdomen	Skin grafting
A.B	F	25yrs	Mutilated: Nose,upper and lower lips	Forehead flap, modified Bernard-Burow cheek advancement Cheiloplasty
A.R	F	20yrs	Lower Lip Mutilation	Lower lip reconstruction by Schuchardt technique
A.A	F	40yrs	Upper Lip cut wounds	Direct closure
A.H	F	4months	lower limb postburn contracture	Contracture release by V-Y plasty
A.J	F	35yrs	Right lower lip deformity	Estlander's lateral flap
E.A	F	13yrs	Upper and lower lip mutilation	Modified Bernard-Burow cheek advancement cheiloplasty
K.D	M	20yrs	Upper lip deformity	Ashley's modification of lip switch techinique
L.M	F	30yrs	Upper lip deformity	Abbey flap
A.M	F	28yrs	lower limb postburn contracture	Contracture release by V-Y plasty
N.D	F	30yrs	Upper lip Mutilation	Webster bilateral cheek advancement flaps with crescentic perialar excisions
O.G	M	19yrs	Upper lip deformity	Arterialised nasolabial island flap
O.A	M	22yrs	Upper lip deformity and amputated fingers	Webster bilateral cheek advancement flaps and deepening of finger web spaces
O.J	M	20yrs	Upper lip and nose mutilation	Forehead flap, modified Bernard-Burow cheek advancement Cheiloplasty
O.F	M	44yrs	Upper lip Mutilation	Advancement flap and full thickness skin graft
O.M	M	26yrs	lower lip Mutilation	Gillies fan flap
O.D	M	25yrs	lower lip Mutilation	Lower lip reconstruction by Schuchardt technique
O.K	M	33yrs	Amputated fingers	Web space deepening
O.N	M	60yrs	Lower lip deformity	lower lip reconstruction with tongue flap
O.P	M	23yrs	Upper lip deformity	Abbey flap
S.A	F	30yrs	Upper and lower lip mutilation	Webster bilateral cheek advancement flaps with crescentic perialar excisions
S.A	F	22yrs	Upper lip deformity	Upper lip repair and Scar revision
A.S	F	35yrs	Upper and lower lip mutilation	Modified Bernard-Burow cheek advancement cheiloplasty,Tongue flap
O.P	M	17yrs	Upper and lower lip mutilation	Modified Bernard-Burow cheek advancement Cheiloplasty
S.A	F	25yrs	Upper and lower lip mutilation	Webster bilateral cheek advacement flaps and Schuchardt Flaps
O.O	F	20yrs	Burns lower limbs	Skin grafting

Discussion

The conflict that has been raging on in northern Uganda for the past 20 years has led to tremendous suffering of the population impacting almost 8% of Ugandan population (the proportion of the Ugandan population that inhabits this region). The most affected being women and children. The conflict has resulted among others, in thousands of people who have suffered disfigurement through the cutting of facial and other body parts.

There have been a number of mitigation efforts by government and non government organisations (NGOs) to rehabilitate the people affected by the war. There is a unique effort by Plastic Surgeons to rehabilitate victims' physical disabilities and restore lost body parts. Between 2004 and 2006, the Plastic Surgery team of Mulago hospital has rehabilitated 34 victims of the northern war . Of these 23 were females and 11 were males. Most of these people had suffered severe disfigurements which necessitated multiple staged reconstructive procedures on them.

The majority of the reconstructive operations were on the lips despite the fact that many victims had also suffered from mutilation of other body parts. Victims who had lost their lips were determined to be suffering more. Such a victim cannot close her/his mouth, so saliva keeps drooling, eating and drinking are clumsy exercises. Some of them withdraw from society as they are stigmatised.

A number of patients could not be operated from the local hospitals because of the rudimentary state of the healthy systems in these areas following the twenty years of war. Some of the patients were transported to Mulago Hospital with the help of NGOs but this proved to be quite expensive since most of the reconstructive procedures are staged. So there is a need to set up rehabilitation centres in these areas.

Limitations

- awareness by victims, government and potential funders of possibility of successful surgical reconstruction
- attitudes of our stake holders towards indigenous experts; nostalgia about visiting plastic surgeon being the only ones who can do the work
- Funding

Recommendations

- Increase awareness in IDP camps, government / local leaders and donors and all support organizations of benefits of this activity
- Availability of local expertise
- Mobilization of resources
- Promote the idea that local experts just like international experts need to be motivated and remunerated for the skills.

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