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COMMENTARY

Obstetrics and gynaecology in an Ethiopian war zone

Awol Yemane[1] | **Hale Teka**[1] | **Frewoini Tesfay**[1] | **Hagos Gidey**[1] | **Ashenafi Tekle**[1] | **Ytbarek Tadesse**[1] | **Mohammedtahir Yahiya**[1] | **Habtom Tadesse**[1] | **Birhane Amare**[1] | **Fanos Gebru**[1] | **Mulugeta G/Her**[1] | **Selam Hailay**[1] | **Tsega G/Mariam**[1] | **Yibrah Berhe**[1] | **L. Lewis Wall**[1,2]

[1]Department of Obstetrics and Gynaecology, College of Health Sciences, Mekelle University, Mekelle, Ethiopia

[2]Department of Obstetrics and Gynecology, Washington University in St. Louis, St. Louis, Missouri, USA

Correspondence
L. Lewis Wall, 1036 Dautel Ln, St. Louis, MO 63146-5504, USA.
Email: walll@wustl.edu

The unprovoked Russian invasion of Ukraine that began in February 2022 has caused worldwide anger and international condemnation. The European and North American response to these events has been swift and dramatic. An equally devastating war broke out in the Tigray Region of northern Ethiopia over 18 months ago, but this conflict has been largely neglected by the international community. We are saddened to realise that this may be because African lives are being destroyed in Tigray, not European ones, as in Ukraine.

We are obstetricians and gynaecologists at Ayder Comprehensive Specialized Hospital in Mekelle, the capital of Tigray Region. Our institution is the second largest hospital in Ethiopia and serves as the tertiary care referral centre for a catchment area of 9 million people. The consequences of this war have been especially tragic for girls and women. As obstetricians and gynaecologists, these are our patients.

In early November 2020, war broke out in Tigray. The city of Mekelle, where our hospital is located, was captured by federal troops within a month of the onset of the war, whereas the rest of Tigray Region continued to experience significant fighting (Figure 1).

The specific political events that led to the outbreak of the war have become irrelevant to the continuing human consequences of the conflict, which are severe and worsening. Civilians have been massacred, crops destroyed, livestock slaughtered and schools looted.[1,2] Health centres, clinics and hospitals throughout Tigray were systematically targeted for destruction, in contravention of the Geneva Conventions and the internationally accepted laws of war.[2,3] Some 70 000 Tigrayans have fled across the western border to Sudan as refugees. Two million Tigrayans have become displaced internally, many fleeing to Mekelle. Nearly 90% of the population of Tigray now live in conditions of food insecurity.[4] Some 400 000 people face starvation. Global acute malnutrition among children now affects 28% of the paediatric population, and is worsening under conflict conditions.[4]

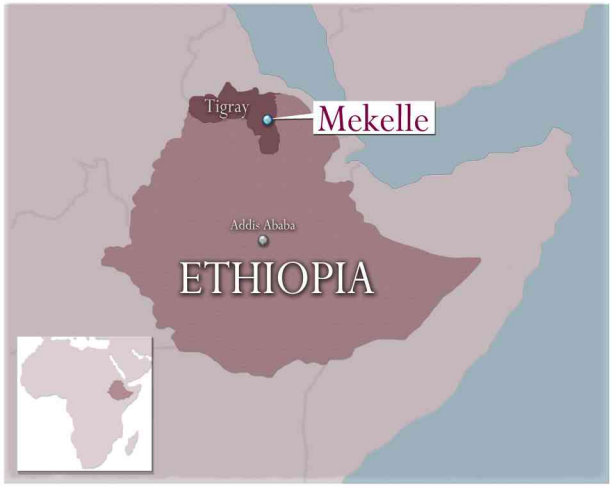

FIGURE 1 Map of Ethiopia showing the location of Tigray and the city of Mekelle. Copyright L. Lewis Wall, used by permission

Tigrayan girls and women were targeted specifically by military personnel in this conflict. Thousands of women were brutally raped. There are multiple reports of gang rapes that lasted for days, sometimes ending in the deliberate mutilation of the victims. We have seen and cared for these women. The international press has widely reported on such cases, which have been confirmed by on-the-ground investigations and victim interviews carried out by non-partisan international humanitarian organisations such as Amnesty International and Human Rights Watch.[5–7] In one of the most extensive investigations to date, Amnesty International stated: 'The patterns of sexual violence emerging from survivors' accounts indicate that the violations have been part

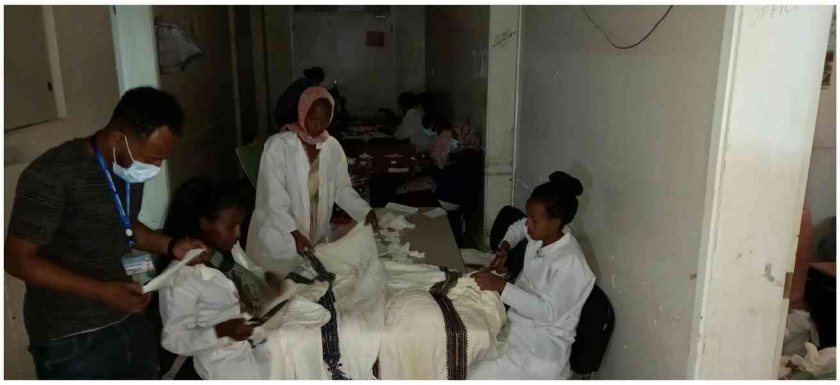

FIGURE 2 Ayder Hospital staff cutting up old clothes to make bandages and surgical dressings. Copyright L. Lewis Wall, used by permission

of a strategy to terrorize, degrade, and humiliate both the victims and their ethnic group'.[5]

Aside from stolen vehicles and ambulances, Ayder Hospital was largely spared from the looting and deliberate destruction that took place elsewhere in Tigray, but the hospital has not escaped unscathed. A de facto humanitarian blockade on the delivery of food and medical supplies to Mekelle was imposed from the beginning, even when the city was under the control of federal troops. In June 2021, the Tigray Regional Government regained control of Mekelle, but the siege of Tigray and the blockade of medical supplies to Ayder Hospital has continued largely unabated. Our humanitarian mission as physicians and surgeons requires us to provide compassionate, competent clinical care to everyone, irrespective of their age, sex, gender, political or religious affiliation, ethnicity or military service. Although our commitment to these ideals has not wavered, it is becoming impossible to provide clinical services at the level that our circumstances demand. Our healthcare system is being strangled, slowly and deliberately.[2,3] We have now reached the point at which we can no longer function.

Before the war, the Department of Obstetrics and Gynaecology at Ayder Hospital provided high-level obstetric ultrasound scanning, took care of many high-risk pregnancies referred from throughout northern Ethiopia (including large numbers of pregnant women with rheumatic heart disease), performed complicated caesarean deliveries for women in prolonged obstructed labour, and carried out complex reconstructive gynaecological surgeries for prolapse and obstetric vesicovaginal fistulas. We were the home base for the country's first (and leading) fellowship training programme in female pelvic medicine and reconstructive pelvic surgery.[8] We were the only functioning centre for chemotherapy and the treatment of gynaecological cancers in northern Ethiopia. We had active programmes in laparoscopic surgery, infertility care, family planning and abortion services. Ayder Hospital was in the process of building a 300-bed comprehensive cancer centre, including the installation of state-of-the-art radiation therapy equipment, when the war broke out. Those plans are now in ashes, the equipment non-functional and useless.

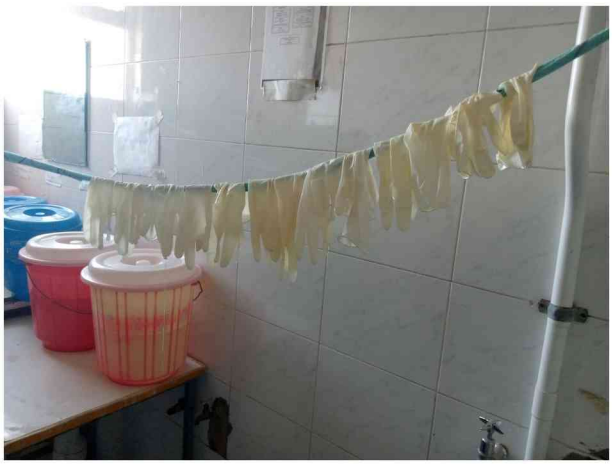

FIGURE 3 Washed surgical gloves drying prior to reuse. Copyright L. Lewis Wall, used by permission

As a result of the blockade of food and medical supplies to Tigray, even the most rudimentary services at our hospital have started to vanish, as has been previously reported.[9] We must tell women to bring old worn-out clothing with them to the hospital so that we can cut these garments up for use as packs and dressings during surgery or delivery (Figure 2). We are forced to wash and re-use examination gloves (Figure 3). The computed tomography (CT) and magnetic resonance imaging (MRI) scanners have not functioned for over a year. Often, we no longer perform caesarean deliveries for fetal indications. We must save our scarce resources for cases in which the mothers' lives are threatened directly: a sad but necessary calculus of suffering. Anti-D immunoglobulin is no longer offered to Rhesus (Rh)-negative women, as we no longer have any supplies. (Before the war, this was provided free to everyone.) Our pharmacy is depleted, and the few drugs that remain are beyond their official shelf lives. Resupply is nearly impossible. Lack of power, water and collection bags means that we can neither process blood for transfusion nor store it for later use. Essential drugs such as misoprostol, intravenous fluids, hepatitis B vaccine, antibiotics, chemotherapy agents, diclofenac, surgical sutures and bandages are now unavailable. Even reagents for basic

laboratory investigations, such as haemoglobin, urinalysis and rudimentary organ function tests, are no longer available. In spite of heroic improvisation, our hospital's dialysis service has collapsed, meaning that patients with acute renal failure – including pregnant women – are now dying from otherwise treatable conditions.[10] The few supplies of antibiotics, anaesthetic agents and oxytocin, which were recently received from the Ministry of Health through the International Red Cross, will run out in a few days.

Before the war we had a state-of-the-art oxygen production facility on site. This no longer functions because of a lack of spare parts, power interruptions and an inability to perform the maintenance required. There is no other source of oxygen in Tigray, and, of course, we too are in the middle of the Covid-19 pandemic: with no oxygen, non-existent intensive care capacities, a lack of personal protective equipment and no antiviral medications.

The obstetric complications of this situation are alarming and worsening. We are seeing labouring women die because of a lack of essential drugs such as misoprostol, oxytocin, antibiotics and routine anaesthetic agents. Tigray is a rural, mountainous region. Before the war many areas were difficult to reach, even with four-wheel-drive vehicles. Now the lack of public transportation, the almost complete destruction of the regional ambulance system and a progressively worsening shortage of fuel for all vehicles means that labouring women with complications struggle even to reach our hospital in a timely fashion. Many women with obstetric complications arrive on foot or have been carried on home-made stretchers by men from their villages. If they do manage to reach Ayder Hospital, they have often sustained irreversible damage. Some, of course, do not make it at all. As the community has become aware that our ability to help these women has been handcuffed by the blockade, many have lost hope and do not even attempt to make the journey. Many of those who would otherwise come are terrified to set out because of the continuing drone strikes on refugee camps, markets and civilian centres.[11]

There are now few, if any, patients in our antenatal clinics. Hospital deliveries have fallen progressively with every passing week that the conflict has continued. In-hospital severe acute maternal morbidities and maternal deaths, rare before the war, are now a daily experience. The number of known maternal deaths has tripled over the last quarter; the number of deaths that we do not know about is certainly many times higher, as maternal deaths in the surrounding communities are beyond measurement at the present time. Hundreds of women have become pregnant as the result of the systematic use of rape as a weapon of war. These women would gladly seek abortions if we could provide them, but under the present circumstances we cannot.

The banking system is in ruins. There is no money. Inflation is skyrocketing and supplies are scarce. Hospital staff have not been paid in over 8 months. It is harder and harder to feed our families and even to have the strength to continue our work. Beyond our clinical obligations, we must search for food for ourselves and our families after working all day caring for patients under extraordinarily trying conditions.[12]

As obstetricians and gynaecologists, the intimate details of our patients' lives are entrusted to us. In accepting this intimacy, we also accept the obligation to act when we witness injustice—and we are seeing unimaginable injustices every day. As doctors taking care of women in this region, we want the world to know about the plight of our patients and the horrors they are enduring. They are innocent civilian victims of war. We implore the international community of obstetricians and gynaecologists to raise their voices to demand an end to the blockade of humanitarian aid to Tigray. The siege must be lifted. The women of Tigray urgently need access to these lifesaving medical supplies. We beg our colleagues in the international community to condemn these conditions and the policies that have created them, and to press world leaders to speed relief to our patients. Our obligations as physicians require this of all of us.

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ORCID
Awol Yemane https://orcid.org/0000-0001-8271-2447
Hale Teka https://orcid.org/0000-0002-0968-4627

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