

Health Status of Afghan Refugees in Europe

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Four decades of civil war, violence, and destabilisation have forced millions of Afghans to flee their homes and to move to other countries worldwide. This increasing phenomenon may challenge physicians unfamiliar with the health status of this population, which may be markedly different from that of the host country. Moreover, several factors during their migration, such as transport in closed containers, accidental injuries, malnutrition, and accommodation in detention centres and refugee camps have a major influence on the health of refugees.

Keywords: Afghan refugees ; health status ; internal conflicts ; migration

1. Introduction

All refugees, regardless of their origin, are of international concern. Given that their relationship with their own state has broken down, the global community has a clear responsibility to protect their fundamental rights. Underlying conflicts may threaten all generations, and many migrants have travelled through treacherous and stressful conditions to reach their destination countries.

Afghanistan is a country which has consistently produced immigrants due to its geographical location, ethnic structure and continual internal disturbances. Afghans have been migrating to neighbouring countries for centuries. The most important mass migration movement in recent years occurred when the country was occupied in 1979 ^[1].

Four decades of civil war and serious human rights abuses have forced millions of Afghan men, women and children to flee their homes and seek refuge in other parts of Afghanistan or outside the country. Since the armed conflict began in 1979, civilians—women and children in particular—have suffered enormously from its devastating consequences ^[1]. The conditions of migration and settling in the host countries certainly differ between Afghans and may depend on their socioeconomic status, religion status, and affiliation to ethnic minorities.

There has recently been a spike in the emigration of Afghans, especially those seeking asylum in Europe, and this may have been encouraged by the mass exodus of Syrians. Between 2015 and 2017, nearly one million Afghans sought asylum worldwide ^{[2][3]}. Nearly two thirds of asylum seekers in the past seven years sought asylum in the EU, with Germany, Austria, Hungary and Sweden being the top destinations. Afghans are the second largest group of first-time asylum applicants in Europe. For the period of the last 7 years, Germany has been the top country in which Afghans lodged asylum claims ^{[4][5][6]}. It seems that the number of Afghan refugees is also increasing in Switzerland. Indeed, a study carried out in the Emergency Department of the Inselspital showed an increase in the number of visits by Afghans in recent years ^{[7][8][9]}.

It is therefore argued that it is of great importance to study and document the health status of refugee populations, in order to provide researchers with an overview of demographics, infectious diseases, metabolic and nutritional abnormalities, chronic cardiometabolic diseases, mental disorders and psychological distress, and to identify protective factors which could support key health concepts and good clinical practice. Given the high variety of specific diseases among migrant groups, the diversity of the origins of refugees and asylum seekers, and the prevalence of asylum seekers of Afghan nationality in the aforementioned countries, researchers chose to focus on this specific population.

2. Main Parameters Impacting Refugees' Health

The health of refugees and asylum seekers is influenced by the poverty in their countries of origin ^{[8][9][10][11]}, countries with low human development index and thus populations with impaired health status. Furthermore, access to health system services may be restricted prior to migration due to ongoing war, poverty and violent conflicts and this appears to be strongly associated with undiagnosed and poorly treated populations ^{[12][13]}. The main factors contributing to the

observed low health status include acute and chronic malnutrition, low vaccination rates, low healthcare availability ^[7], and poor distribution of services for cancer prevention ^[14].

The conditions during migration may include transport in flimsy boats or closed containers ^[15]. This is why this population is vulnerable to contagious infectious diseases, accidental injuries, malnutrition and metabolic disturbances, not to mention hypothermia, acute exacerbations of respiratory, gastrointestinal and cardiovascular diseases, obstetric complications and gynaecological events, as well as mental and psychologic distress ^{[16][17]}. Moreover, during their travel or on arrival, they frequently spend long periods of time in detention centres and refugee camps with suboptimal hygiene conditions and poor access to health services ^{[16][17]}.

Even though there are published data highlighting proper hygiene in most refugee centres, poor hygiene, precarious living conditions, sanitation, and living in cramped areas predispose the immigrants to several epidemic diseases, such as cholera, metabolic abnormalities, and toxic concentrations of lead ^[7].

In this context, the experience of stress is vital, where stress is defined as an event where homeostasis is threatened and then restored by the organism through behavioural and physiological mechanisms. Stressors can be physical or psychological and their importance depends on both their intensity and their duration. "Stress" comprises not only emotional stress from stressful life events, but also stress induced in the organism through extrinsic stressors (e.g., chemical warfare, malnutrition). The body undergoes many endocrinological and epigenetic changes, which prove to be detrimental for homeostasis, and impair immunoregulation in response to disease ^[10]. The experiences of war, fleeing for asylum, living in temporary mass refugee settlements, and resettling in other countries expose refugees to multiple threats/effects on their physical and psychological health and wellbeing.

In this respect, the epidemiological profile of the country of origin should be considered when approaching refugees or asylum seekers, in order to allocate patients to a specific screening program (ECDC). Indeed, studies investigating specific medical conditions demonstrate significant variability between different refugee populations from different countries ^[12]. For example, Europe receives refugees mainly from Syria, Afghanistan, Iraq, Eritrea, and Somalia ^[18]. Given the variety of specific diseases among migrant groups, the diversity of the origins of refugees and asylum seekers, and the increasing numbers of Afghan refugees, researchers shall focus on this specific population and describe their health status, in order to optimise the medical approach and management.

3. Infectious Diseases

A number of communicable diseases have been reported to spread between migrants and refugees living in the EU. These include respiratory tract infections, tuberculosis (TB), hepatitis A, typhoid fever, shigellosis, meningococcal meningitis, cutaneous diphtheria, scabies, and louse-borne relapsing fever ^[19].

A study examining the incidence of TB in the European Union/European Economic Area reported that of the 73,996 cases notified, 25% were of foreign origin ^[20]. Moreover, data from the National Surveillance System in the UK suggest that diagnosis of tuberculosis is delayed among persons of foreign origin ^[21]. Among the countries mentioned above, the reported incidence in Afghanistan is 189 new cases per 100,000 population ^[22]. Moreover, refugees living in detentions centres and camps, which are associated with overcrowding and poor ventilation, may be at increased risk of TB exposure ^[23]. In addition, refugee patients with TB may not complete treatment, leading to clinical relapses and drug resistance ^[24]. Furthermore, malnutrition is higher among refugees living in poor socioeconomic conditions and is associated with TB prevalence and its reactivation ^{[25][26][27][28]}. In a recent study, Kumar et al. (2020) found that the prevalence of latent TB infection among newly arriving refugees into the United States was significant high in Afghan population ^[29]. Hence, awareness for TB, strength of the surveillance strategies, compliance with measures to limit transmission and training of healthcare workers should be optimised. Screening would undoubtedly be impossible during exodus from the country, so screening at the point of entry would be more reasonable.

Infections of the gastrointestinal tract, and especially hepatitis A and typhoid fever, have previously been reported to be endemic in all of the above-mentioned countries ^[30], whereas multiple cholera outbreaks have been reported in Afghanistan ^[31]. A meta-analysis of the seroprevalence of chronic hepatitis B in immigrants from central and south Asia found intermediate seroprevalence ^[32]. Only a few studies have recorded the prevalence of hepatitis B in Afghanistan. Previous studies suggest that HBV prevalence is 6.15% in the overall population ^[33]. However, the prevalence among Afghan refugees may be significantly different ^[34]. Indeed, published data have shown that the prevalence of HBsAg among Afghan refugees varies from 4.1% in the United States to 60% in Dalaki, Iran ^[35]. Unfortunately, data are scarce on

the overall prevalence of Hepatitis C virus and HIV in Afghanistan [36]. Given the higher incidence of HCC, liver cirrhosis, and the associated morbidity and mortality, screening strategies should be established.

Leishmaniasis affect 1–1.5 million people worldwide and is the ninth most prevalent infectious disease globally [37][38]. Afghanistan also continues to be one of the countries with the highest prevalence of leishmaniasis. In addition, it is also reported that Kabul, the capital of Afghanistan, is the largest focus of cutaneous leishmaniasis worldwide [39]. It is estimated that national incidence of leishmaniasis in Afghanistan is >200,000 cases, the majority of them being caused by *Leishmania tropica* and *Leishmania major* [40]. Various parameters such as political instability, poor healthcare infrastructure, dysfunction of the public health system, and ongoing conflict contribute to an increase in incidence. Moreover, epidemiological factors such as mass migration, overcrowding, incomplete treatment, and failure of vector control strategies may have led to the many outbreaks of the disease recorded in Afghanistan [37][39]. The data on the incidence of leishmaniasis among Afghan refugees are scarce. A systematic review and meta-analysis of the Afghan population in Iran reported a proportion of 7% for leishmaniasis [41].

Malaria is a common endemic disease in Afghanistan threatening about half of the Afghan population. Incidence has increased in recent years, especially in the Eastern regions [42]. In recent decades, the numbers of malaria cases has sharply increased in Afghanistan and—as with leishmaniasis—many outbreaks of the disease have been recorded [43]. The majority of the cases are caused by *Plasmodium vivax* (70–95%), followed by *Plasmodium falciparum* [44]. The data on the prevalence of malaria among Afghan refugees are limited, but an older study from Pakistan (2002) reported a tenfold increase in malaria cases between 1981 and 1991, that was probably associated with the arrival of 2.3 million Afghan refugees in Pakistan's North West Frontier Province [45]. However, in subsequent years, the incidence of malaria in refugee camps decreased by 25% due to preventive measures, and this highlights the significance of control activities and prevention strategies [45]. In addition, in a systematic review and meta-analysis, Pourhossein et al. (2015) reported a high incidence of malaria amongst Afghan immigrants living in Iran and clearly showed the importance of monitoring the health status of immigrants in reducing the spread of communicable diseases [41].

The overall prevalence of intestinal parasitic infections in Afghanistan is high (39%), with higher reported rates in children and adolescents [46]. Commonly reported intestinal parasites in Afghan population include *Ascaris lumbricoides*, *Giardia intestinalis*, and *Hymenolepis nana* [46]. Intestinal parasitic diseases are also common among Afghan refugee populations. Haq et al. studied the prevalence of *Giardia intestinalis* and *Hymenolepis* in a cross-sectional analysis of Special Immigrant Visa holders from Afghanistan into the United States and found high prevalence (30.7%) of at least one intestinal parasite. The most commonly detected parasites were *Blastocystis*, *Giardia*, and *Dientamoeba* [29]. Given that parasitic diseases may cause severe and lethal diseases [47], prompt prevention and eradication therapies should be established, especially for this vulnerable population.

Furthermore, antimicrobial resistance is a worldwide public health problem (World Health Organization. Global Action Plan). Research indicates that antimicrobial resistance is increasing in low-income countries with poor hygiene strategies and uncontrolled antibiotic use [48]. Moreover, there is increasing evidence that the mobile human population may contribute to the global spread of resistant bacteria [49]. A recent review of 238 articles related to antimicrobial resistance reported that the most frequent origin of travelers with drug resistant microorganisms was Asia, with 36% [49]. These findings are in accordance with the findings of Aro et al., who examined the prevalence of MDR-bacteria in refugees and asylum-seekers treated at Helsinki University Hospital. They reported colonisation in 45% of the cases, with remarkable differences between countries [50].

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