at-risk group, we employed deterministic modelling to estimate national incidence or prevalence.

Results: Our study revealed about 4% of the estimated 28.3 million Ghanaian population suffer from serious fungal infections yearly with about 30,000 affected by life-threatening invasive fungal infections. We estimate an incidence of 6,275, 11,737 and 724 cryptococcal meningitis, Pneumocystis jirovecii pneumonia and disseminated histoplasmosis cases in AIDS respectively. Oral and oesophageal candidiasis was estimated to collectively affect 18,292 Ghanaians. Among adult asthmatics, 18,385 and 24,268 were estimated to have allergic bronchopulmonary aspergillosis (ABPA) and severe asthma with fungal sensitisation (SAFS) respectively. We estimated a prevalence of 10,464 cases of all stages of chronic pulmonary aspergillosis (CPA) with 50% assumed to occur post tuberculosis and an annual incidence of 277 cases of invasive aspergillosis. Candidaemia and candida peritonitis cases were estimated to be 1,446 and 217 respectively. We estimated a prevalence of 442,621 recurrent vulvovaginal candidiasis (RVVC) cases among adult women and 598,840 Tinea capitis cases among school children. Mucormycosis and fungal keratitis were estimated to annually affect 58 and 810 Ghanaians respectively. No reliable data exist on mycetoma or chromoblastomycosis.

Conclusion: There is substantial burden of serious fungal infections in Ghana. Increased awareness, clinical expertise, laboratory capacity, research and availability of antifungals are needed urgently for improved care.

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Estimated burden of serious fungal infections in Ethiopia

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Keywords: Invasive Fungal infections; Tinea capitis; Epidemiology; Ethiopia

Introduction: The morbidity and mortality associated with fungal infections in Ethiopia is not known. Therefore, we assessed the annual burden in the whole population and among populations at risk.

Methods: Data were extracted from 2011 reports of the Ethiopia World health stats, AIDS program, reports, 2015 Ethiopian Education for All 2015 National Review Report [1,2], and from a comprehensive PubMed search. We used modeling and HIV data to estimate the burdens of Pneumocystis jirovecii pneumonia (PCP), cryptococcal meningitis (CM) and candidiasis. Asthma, chronic obstructive pulmonary disease and tuberculosis data were used to estimate the burden of allergic bronchopulmonary aspergillosis (ABPA) and chronic pulmonary aspergillosis (CPA). Burdens of candidaemia and candida peritonitis were derived from critical care and/ or cancer patients' data.

Results: In 2011, Ethiopia's population was 102 million with 593,375 people reported to be HIV-infected. Estimated burden of fungal infections was: 7,051,736 tinea capitis, 9575 cryptococcal meningitis, 13,838 Pneumocystis pneumonia (PCP), 1,426,988 recurrent candida vaginitis, 166,050 oral and 57,344 Oesophageal candidiasis cases respectively. There were 14,855 estimated post-tuberculosis chronic pulmonary aspergillosis cases, whereas candidaemia and Candida peritonitis cases were 5100 and 765 respectively. No reliable data exist on endemic mycosis or fungal keratitis.

Conclusions: Around 9% of Ethiopians suffer from fungal infections annually, mostly school children with tinea capitis. Cryptococcosis and PCP are the major causes of mycoses-related deaths. Upgrading mycosis diagnosis capacity and national surveillance of fungal infections is urgently needed.

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Pediatric gastrointestinal basidiobolomycosis: Case series

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Background and Purpose: Pediatric gastrointestinal basidiobolomycosis (GIB) is an emerging fungal infection caused by basidiobolus ranarum. The disease had a high prevalence in the pediatric population from tropical and subtropical regions in Saudi Arabia. GIB poses a challenge in the diagnosis and requires a high index of suspicion. Initially early surgical interventions with systemic antifungal therapy were recommended as the optimal management, however subsequent cases treated successfully with antifungal alone. Here, we reviewed the experience of our center and up to our knowledge this the largest series of the pediatric (GIB) cases. We aim to help understanding this emerging disease, to document the efficacy of the antifungal monotherapy, and to asses the clinical outcomes.

Methods: A retrospective electronic chart review conducted for twenty-one (21) pediatric patients with GI basidiobolomycosis who were diagnosed between February 2002 and February 2018 at King Faisal Specialist Hospital and Research Center (KFSHRC), Riyadh, Kingdom of Saudi Arabia.

Results: The majority of the patients were males from the southwestern region of Saudi Arabia. The mean age at diagnosis was four years. Most of the cases presented with abdominal mass and eosinophilia. The diagnosis proven by histopathological finding in eighteen cases, four of them had a positive culture also. Seven cases treated with the combined surgical and medical therapy and the remaining with a systemic antifungal alone. Voriconazole was the most used antifungal. Trimethoprim-sulfamethoxazole used successfully in the refractory and instances of relapse. None of our patients died. Two cases have shown a relapse of their symptoms.

Conclusion: Early diagnosis and treatment guard the favorable prognosis of pediatric GIB. The optimal management is challenging. From the finding of this series, we think that a new generation triazole (Voriconazole) monotherapy is an effective treatment and Trimethoprim-sulfamethoxazole is a promising agent in the management of refractory and relapse cases.

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