

Supplementary File 1. Demographic characteristics of the study participants

Out of 200 samples collected from HIV-infected patients in the current study, 147 samples were from males and 53 samples were from females. From these total samples, 16 Actinomycetes were isolated from males and three from females. Statistical analysis revealed no statistically significant relationships between the gender and prevalence of Actinomycetes in HIV-infected participants ($p = 0.412$). Of the three Actinomycetes from healthy controls, two bacterial genera were identified from females and one from a male. Similarly, no significant associations were observed between the gender and Actinomycete prevalence in the control participants ($p = 0.223$). In a study by Abtahi et al., no significant associations were observed between the pulmonary nocardiosis and gender of the patients (27). A 2016 study by Frimpong et al. in Ghana included 120 patients; of whom, 42 patients (35%) were males and 78 patients (65%) were females with a sex ratio of 1.86:1 (38). Bekolo et al. carried out a research study in Cameroon (2023) that involved 30 HIV-positive patients, reporting that the disease in women was twice as common as that in men (39). In a 2016 study by Moshrefi et al. in Mazandaran Province of Iran, 77.81% of the 270 infected patients were males and 22.19% were females (40). Of the 200 samples collected from the oral cavity of HIV-infected participants in the present study, 197 samples were from Iranian nationality and three samples from a foreign nationality. All 19 Actinomycetes from this group were from Iranians. Statistical analysis showed no significant associations between the nationality and Actinomycete prevalence in HIV-infected participants ($p = 0.455$). Similarly, from the 85 control participants of the present study, all the three Actinomycetes were isolated from Iranians. Statistical analysis in control participants showed no statistically significant relationships between nationality of the participants and Actinomycete prevalence in the control group ($p = 1.000$). In another study, Hashemzadeh et al. reported that 92% of isolates were from Iranian patients and 8% (three isolates) were from Iraqi patients.