

Abstract

There are very few published data about the occurrence of *Escherichia coli* (*E. coli*) and *Staphylococcus aureus* (*S. aureus*) in raw milk (Market and Farm milk) in Dakahlia Governorate, Egypt. Therefore, the present study was conducted to clarify the role of raw milk in transmitting some zoonotic bacteria such as *S. aureus* and *E. coli* to man

in developing countries in Africa. Moreover, the level of cultural awareness among farmers about the importance of economic and public health from zoonotic diseases in most of these countries is low, and this increases the effort required to control these diseases [2]. One product that is commonly distributed in raw form is milk. Raw milk is usually colonized by a variety of many zoonotic pathogens such as *Campylobacter jejuni*, enterohaemorrhagic *Escherichia coli*, *Salmonella typhimurium*, *Listeria monocytogenes*, *Staphylococcus aureus*, *Yersinia enterocolitica* therefore; they represent an important source of foodborne pathogens. These pathogens in milk have been linked to the environment in the farm, mixing clean milk with mastitis milk and from livestock [3]. The natural raw milk obtained from the mammary gland of healthy animal is usually with low microbial load and the application of all hygienic measures during milking prevents

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raw market milk samples 55 were contaminated with coli. On the other hand, bacteriological examination of 100 bulk farm milk samples collected from different farms revealed that coli were isolated at a percent of 20 as 20 isolates from 100 examined samples. Other researchers reported high incidence of coliform from different types of milk [19-23]. Recovery of coliform from raw milk is not only regarded as an indicator of fecal contamination but more likely as an evidence of poor hygiene and sanitary practices during milking and further handling. The presence of E. coli itself in milk and milk products as a possible cause of food borne disease is insignificant because it is normally a ubiquitous organism [24]. However, the occurrence of pathogenic strains of coli in milk products could be hazardous for consumers.

Staphylococcus aureus is one of the leading causes of food borne illnesses in humans worldwide and is associated with contaminated foods of animal origin. 85 isolates of aureus out of 150 examined market milk samples and 18 isolates out of 100 bulk farm milk samples were identified as S. aureus by culturing using selective culture media (Baird Parker media) for isolation with a percentage of 56.66% and 18% respectively. Higher incidence of aureus mastitis reached (75.3%) in India were reported [25]. Wide variation in the prevalence of aureus has also been reported [26]. This variation is largely attributed to the changing management conditions and using of different diagnostic tests.

Concerning the type of examined milk samples, the high incidence of

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