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List of Abbreviations

AB	:	Arcobacter broth
ASA	:	Arcobacter selective agar
ASB	:	Arcobacter selective broth
ASM	:	Arcobacter selective medium
BHI	:	Brain heart infusion agar
CAT	:	Cefoperazone amphotericin-teicoplanin agar
CVA	:	Cephalothin- vancomycin amphotericin B agar
EMJH-P80	:	El-linghausen- McCullough- Johnson- Harris Polysorbate 80
JMA	:	Johnson- Murano agar
mCCD	:	Modified charcoal – cefoperazone - deoxycholate agar

Conclusion and Recommendation

Foodborne diseases are responsible for considerable morbidity in both industrialized and developing countries. *Arcobacter* has emerged as one of the most frequently reported foodborne pathogens in which the most risk factors for its transmission are handling and consumption of foods of animal origin including raw milk and some milk products.

So, it is not surprising to find *Arcobacter* species in raw and some milk products if good hygienic practices were not exercised during production, manufacture and precautions were not taken to prevent contamination and subsequent growth of *Arcobacters* in the finished products. Such contamination renders the products unsafe and constitutes a public health hazard.

The results achieved in this study proved the incidence of *Arcobacter* species in raw milk and some milk products especially those consumed raw or received insufficient heat treatment to kill the organism, as it is rapidly inactivated by heating to 55°C.

It is important to recognize the presence of different species of *Arcobacter* in the examined samples including *A.cryaerophilus* and *A.skirrowii* in addition to *A.butzleri* which is very important to recognize its presence as it is considered to be a serious hazard to human health.

Comparison between ASA and JMA indicated that ASA was superior to JMA for selective isolation of Arcobacters. Also the results indicated that use of one medium was not enough for isolation of Arcobacters as ASA and JMA were complementary to each other.

As dairy products may pose a risk of *A.butzleri* transmission to human population, the contamination of yoghurt by *A.butzleri* from the view point of a potential health hazard should not be ignored. *A.butzleri* could contaminate the yoghurt through raw milk used without sufficient heat treatment or through contaminated equipments used for preparation or distribution of this product.

Olive oil has been gaining interest as it could be a hurdle component in certain processed foods and exert a protective effect against foodborne pathogens when contaminated food are ingested, due to its healthy and natural image and its inhibitory properties against pathogens. The data obtained showed significant effect of olive oil on survival of *A.butzleri* in kareish cheese. So it is likely to use the olive oil as food additive.

The ability of *A.butzleri* to survive in kareish cheese during storage period even in unfavorable conditions (presence of low pH and low temperature), makes one can not depend on the environment of food products to promptly inactivate the organism during storage. Thus , to ensure Arcobacter free food products, the organism must be kept out of any product during preparation and subsequent handling of the product.

Therefore, while the role of Arcobacter in human disease awaits further evaluation, a precautionary approach is advisable and measures aimed at reduction or eradication of Arcobacters from the human food chain should be encouraged, this precautions including:

- High quality milk produced under the most possible hygienic conditions should be used.
- Proper cleaning and sanitizing of all dairy utensils and equipment used on the farm or in the plant.
- Water used in food industry should be properly treated (chlorinated) to inactivate the pathogens if present.
- Handling and distribution of milk and milk products should be done under strict hygienic measures.
- Avoid consuming raw milk, the public should be made aware of the hazard of Arcobacters and other pathogens in raw milk and should be advised to consume pasteurized milk and milk products as Arcobacters will not survive the efficient pasteurization process for milk and milk products.
- Using of refrigeration during processing, storage and handling of the dairy product is also essential
- Using olive oil as a food additives in foods due to its inhibitory properties against *A.butzleri*.

- The HACCP should be designed to establish environment monitoring programs to minimize the potential for contamination of finished products and to identify contaminated foods before distribution.
- Application of the Good Manufacturing Practices (GMPS) in milk and milk products, and manufacturing units should be regarded by the regulatory authorities as basic or compulsory requirements.