Cryptosporidium, an enteric protozoan pathogen is hidden enemy in surface water listed as reference pathogen perils for drinking water supplies under WHO guidelines of Safe Drinking-water. In Malaysia, data involving intestinal protozoa infections in raw water supplies are few in numbers. This study provides morphological analysis of Cryptosporidium oocysts obtained from raw water supplies by transmission electron microscopy. The samples were processed by using membrane filtration technique using flat-bed membrane filtration technique. Then the processed samples were observed under direct microscopy. We successfully detected the occurrence of Cryptosporidium by its size which is approximately 4 µm and its rounded shape. The positive samples with Cryptosporidium oocysts were pooled together and preserved with 4% glutaraldehyde for transmission electron microscopy processing. The findings showed that the oocyst is ovoid in shape and covered by thick-doubled cell wall which contains sporozoites. Through this study, an improved understanding on morphological aspect of Cryptosporidium oocyst obtained from raw water will help in controlling and combating the occurrence of this parasite. Therefore, the use of transmission electron microscope serves as confirmation tool to confirm the occurrence of Cryptosporidium in raw water supplies. Besides, on the technical aspects, transmission electron microscopy is the appropriate tool to study the biological and characteristic of other parasites.

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