Muscle Specific Fragile X Related Protein 1 Isoforms are Sequestered in the Nucleus of Undifferentiated Myoblast

ABSTRACT

The pattern of subcellular partitioning of FXR1P isoforms during myogenesis is unique among the family of the FXR proteins. The model system described here should be considered as a powerful tool for ongoing attempts to unravel structure-function relationships of the different FMR family members since the potential role(s) of FXR1P as a compensatory factor in Fragile X syndrome is still elusive.

INTRODUCTION

Introduction Hereditary predisposition to breast cancer can be attributed to germline mutations in the BRCA1 or BRCA2 breast cancer susceptibility genes. Germline mutations in the BRCA1 and BRCA2 genes are associated with the development of breast and ovarian cancers. BRCA2 is associated the development of breast cancer in both women and men, and a moderate increased risk for the development of ovarian cancer. Zabludoff et al investigated the tissue distribution of Brca1 mRNA in adult mouse tissues and reported that Brca1 mRNA levels were most abundant in the testis and the ovary. They also found that high level Brca1 mRNA expression in the testis of mice was detected in meiotic cells and postmeiotic round spermatids and, in contrast, little or no Brca1 mRNA was expressed in premeiotic germ cells. A low level of Brca1 mRNA was also detected in Sertoli cells. Blackshear et al, on the contrary, demonstrated in the mouse that Brca1 and Brca2 mRNA are expressed in mitotic spermatogonia in addition to early meiotic prophase spermatocytes; Sertoli cells and Leydig interstitial cells were found consistently negative for Brca1 and Brca2 transcripts. In the normal mouse adult ovary, Brca1 and Brca2 transcripts were localized specifically to granulosa cells, thecal cells and oocytes of developing follicles as well as luteal cells of recently formed corpora lutea and surface epithelium. Considering these results, we further investigated the presence of human BRCA1 and BRCA2 proteins in an ovotestis by immunochemical analysis with a different panel of antibodies against BRCA1 and BRCA2.

CONCLUSION

It may be concluded that in Thai HIV-infected patients, both opportunistic and non-opportunistic intestinal parasite infections are still highly prevalent. In the management of HIV-infected patients in Thailand with or without diarrhea symptom, stool examination is still a useful investigation. Therefore, as shown in previous reports, opportunistic intestinal parasite infection should be suspected in any HIV-infected patient with low immunity presenting with diarrhea. The importance of tropical epidemic non-opportunistic intestinal parasite infections should not be neglected.