SUMMARY

A prospective study of 30 cases of undescended testes were done in the radiological department, Faculty of medicine, Zagazig University hospital, Benha Hospitals during a period from April 2000 to October 2002.

The age of patients ranged between 1 year and 26 years old with a mean age 9 years. There were 12 cases with right-sided undescended testis, 10 cases with left sided undescended testis and remaining 8 cases presented with bilateral undescended testes making a total of 38 undescended testis.

Ultrasonography, computed tomography and magnetic resonance imaging were used to identify the location of the undescended testis with an evaluation of the specificity, sensitivity and accuracy of each modality as investigative instrument.

Ultrasonography identified 24 testes only 20 were truly positive,14 testes were found in the inguinal canal 4 testes were found at the orifice of internal inguinal ring, 4 testes were detected below the external inguinal ring and only two testes of the intra-abdominal could be detected by US. Specificity rate of US was 50% .Ultrasonography diagnosed 4 truly negative undescended testes with a sensitivity rate of 66%. The overall accuracy of US was found to be 63 %.

Computed tomography identified 28 testes only 24 were truly positive,14 testes were found in the inguinal canal 5 testes were found at the orifice of internal inguinal ring, 5 testes were detected below the

external inguinal ring and only 4 testes of the intra-abdominal could be detected by CT. specificity rate of CT was 50% .Computed tomography diagnosed 4 truly negative undescended testes with a sensitivity rate of 80%. The overall accuracy of US was found to be 73 %.

Magnetic resonance imaging identified 33 testes, only 31 were truly positive with a specificity rate of 92%. MRI diagnosed 16 testes to be in the inguinal canal ,4 testes at the internal orifice of the inguinal canal,5 testes below the external ring of the inguinal canal and 8 testes were found intra-abdominally. MRI diagnosed 3 testes to be absent, one of them was truly negative with a sensitivity rate of 96%. Overall accuracy of MRI was found to be 92%.

All patients were followed up after laparoscopy and open surgery as a confirmatory procedures. The correlation was done between the data obtained from each of U/S ,CT and MRI modalities and the end results reached from the laparoscopy and open surgery.