SUMMARY AND CONCLUSION

SUMMARY

Uterine leiomyomas is the most common pelvic tumors in women of reproductive age. Despite their prevalence and impact on normal reproductive and menstrual function little is understood about their basic biology and growth. Most probably it develops. as a results of genetic alteration of normal myometrium and complex interactions of sex steroid hormones with cytokines or growth factors, inhibition of apoptosis may be a cause of tumor development as it prolongs cellular life –span thus allowing accumulation of other genetic alteration . Recent research efforts have focused on the function of protooncogene and tumor suppressor gene products in directing cell fate, an explosion of research interest has centered around the role of bcl-2 in controlling the surivral and death of cells.

Bcl-2 protein, an apoptosis –inhibiting gene was abundantly expressed in leiomyoma relative to its expression in normal myometrium this raises the possibility that it may be respon sble at least in part for the growth of leiomyoma by preventing apoptoitc cell death.

The present study included 22 women diagnosed clinically and by ultrasound as uterine leiomyoma, the speciemens was obtained after hysterctomy and examined histopathologically to ensure the diagnosis, the myometrium of the same uteri was subjected also to examination the control women are 12 women subjected to hysterectomy due to premenopausal bleeding, psot menopausal bleeding and 3 rd degree uterine prolapse.

All women recieve no pre operative hormonal therapy for six months prior to surgery . All women are subjected to complete history

taking, complete clinilal examination including geneal, abdominal and local gynecological examination and routin laboratory investigations .

This study aimed to measure the level of bcl-2 protein by means of ELIZA technique in myomatous and myometrial tissues to evaluate the role of bcl-2 protooncogene expression in the evolution of uterine leiomyoma.

Bcl-2 protein was found to be abundantly present in tissues of leiomyoma (mean concentration= 296.74 U/ mg protein ±SD.114.39),less increased in the study myometrium taken rom the uteri of myoma cases (mean concentration =107.90U/ mg protein ±SD 51.59) and is present at low level in the control myometrium (mean Concentration =77.16U/ mg protein ±SD 48.06).

There is statistically significant difference between the concentration of bcl-2 in myomatous tissue versus its concentration in the myometrium of the same cases and the control myometrium.

The mean concentration of bcl-2 protein was found to be higher in the secretory phase of the menstrual cycle than in the proliferative pahse of the cycle either in tissues of leiomyoma, study myometrium or in the control myometrium but this difference was statisitically insignificant.

Conclusion And Recommendation

There is greater abundance of bcl-2 protein in leiomyomas relative to the normal myometrium of the same individual uteri and to the normal control myometrium.

Although bcl-2 expression in leiomyoma cells predominated in the secretory, progesterone dominated, phase of the menstrual cycle compared to that in the proliferative phase, yet this was not statistically significant.

The abundant expression of bcl-2 protein in leiomyoma may be one of the molecular bases for the enhanced growth of leiomyoma relative to that of normal myometrium in the uterus.

We recommend more studies to be done but preferably with large number of cases to :

-Find the relation between bcl-2 oncoprotein expression and steroid hormone status.

-The effect of treatment e.g. Gn RH analouges (leuprolide acetate) on bcl-2 in leiomyoma

-Hope to use an anti-bcl-2 treatment in selected cases.