

Chapter four

Discussion and conclusion

Prostate cancer more commonly affects old men than younger, biochemical investigations for screening and follow -up of prostate cancer included serum PSA and Bone Scan is used to assess metastasis of disease in bone. This study was done to find out the relation between PSA elevation and bone scintigraphy to identified bone metastasis in prostate cancer patients. This study included 50 patients of newly prostate cancer whom referred to national cancer institute of Gazera university (NCI), their age ranges between 42-93 years (the mean of age is 68 years).

In this study metastasis was found in 27 patients (Table 4.1). The common site of metastases was the skull and lumber spine 23.1% and less common to shoulder, thoracic and pelvis 15.4%.

According to the occupation most of them are farmers, presented 56% of prostate cancer patients in this study (table4.2), and there was no correlation between occupation and metastasis.

Also most affected cases were presented in al Gazera state which presented 74%. (table4.3). The prostate specific antigen (PSA) has been suggested as accurate means of monitoring prostate cancer. An analysis of PSA level and bone scan findings was

carried out in heterogeneous group of prostate cancer patients to show if there was correlation between increases of PSA level and predict of bone metastasis. The normal range of PSA level in blood is from 0 to 4ng/ml. some studies show that bone scan may not necessary in patients with serum PSA level less than 10 ng/ml ,Kageyama,et al. Wolff et al, also excluded bone metastasis when PSA level less than 10ng/ml in newly diagnosed prostate cancer.

According to t-test, the relation between PSA level before treatment and metastasis, the test was Found that there was different in mean between two group (,positive and negative group). The positive Group the mean was 138 ± 100.2 , and p -value =0.003 . And this presented a significant correlation Between PSA level before treatment and metastasis. negative group their mean was 57.4 ± 80.4 show Table 4.4. Also relation between PSA level after treatment and metastasis the result show there was different in mean between two groups ,at positive group the mean was 37.4 ± 54.1 . P -value 0.013 And the mean at negative group was 8.3 ± 10.4 , and this show the significant correlation between PSA After treatment and metastasis. show table 4.5. Table 4.6. Show relation between two types of treatment Medication and radiation and it found that there was no significant different in two types p - value=0.054 .Figure 4.1,present the relation between PSA level before treatment and PSA level after treatment,it was found that the PSA level after treatment decreased by $y=0.13$,and there was a significant

correlation $p\text{-value} = 0.003$ show table(4.6).figure 4.2 presents relation between PSA level before treatment and age , in normal condition the PSA level increased with age because by increasing of age the prostate increase in size and this increase secretion of PSA,in abnormal condition was found that by increasing of age the PSA level was decrease . figure 4.3 show relation between PSA level after treatment and age, it was found that by increasing of age PSA level was decreased. And most regions affected with bone Metastasis was the skull show (table4.7).