DISCUSSION

At the start of the study no difference between patient and control group in Hb level, but during therapy, 40 cases out 50 developed anaemia in group1 (age 55-60years old), one had to stop treatment due to sever anaemia, in group2 (age<55years old) no one stopped treatment, and 32 out 50 developped anaemia, difference was significant between 2 group in study done by **ML Shiffman** and **MS Sulkowski *et al* 2010**, (%28.6) of cases treated by INF plus Ribavirin developed anaemia and show that patient with early onset anaemia (during 1st 8 week of treatment)who received erythropiotin had significant higher SVR than that did not use (45% Vs 25, 9%)

WBC at the start was similar in both group but during therapy, leukopenia was significantly different in 2 group. in patient 55-60years old, 28 patient of 50 exposed to leukopenia but only 3 patient had to stop treatment due to marked leukopenia in group <55 years old 18 cases exposed to leukopenia only one stopped treatment so difference was significant

The study done **by T Jaka liang and Yoon park** *et al* **2002** show that 34% of cases of chronic HCV received INF plus Ribavirin developed Neutropenia

At start of treatment no difference in platelet count between age group 55-60 year and <55 year

But 33 patient of age group55-60year developped thrombocytopenia only one stopped treatment while in group <55

year 21 cases only developped thrombocytopenia no one stopped treatment so difference was **significant.**

The study done by **Rosatti S and Laghi V *et al* 1998**, show thrombocytopenia in 43% of patient of chronic HCV treated by INF plus Ribavirin and the result was **significant.**

So in group 1 patient stopped treatment due to haematological complications were 5 patients, one due to anaemia, 3 due to leukopenia and one due to thrombocytopenia.

3 of patient stopped treatment before 12th week, 2 stopped between12and24 week., where in group 2 only one patient stopped treatment due to leukopenia

Creatinin, AST, ALT, TSH, AFPand Billirubin did not show significant difference all over the study

PCR (Virological Response)

At start of study no significant difference between age group from 55-60year and younger one in quantitative PCR

at 12week: 11 cases of age group55-60year still positive (23%)and36 patients became negative(77%) from 47 cases as 3 cases stopped treatment before 12 week due to haematological complication in age group <55 year only 6 patients persist positive(13%)and43 were negative(87%)from 49 cases as one stopped treatment due to leucopenia, however statistically, the difference is insignificant.

At 24 week**;**4 patients become positive and 30cases still negative from 36 cases as 2 cases stopped treatment before 24 week in age group 55-60 year while in age group<55year only 2 were positive and41 persist negative, difference is statistically insignificant.

At 48 week**:** the difference was significant as 4 patients from 30 were positive in age group55-60 year while only 2 from 41 patients in age group<55year were positive.

All over in age group 55-60 year only 26 cases from 50 completed the course of treatment and become negative (52%), while in age group <55 year 39 patients from50 completed treatment and were negative(78%).

6 month later: 3patients of age group 55-60 year relapsed (+ve PCR), only one relapsed from age group <55 year.

All over the study **SVR** (-Ve PCR 6 month after complet course of INF plus Ribavirin therapy) occur in 23 patients from 50 in age group55-60year (46%) while **SVR** occur in 38 patients from 50 in age group <55year (78%) at the end reponse was significantly different.

Regarding to treatment, SVR and effect of age studies were done by **Thabut D** and **Calvez SL *et al* 2003** show that SVR by pegylated interferon plus Ribavirin in age >65years old was 45% and study done for younger population by **Manns MP** *et al* **2001** and **Fried MW** *et al* **2002** SVR on average was 55%.

This higher SVR in our younger patients may be explained by the only patients who came for follow up 6 month after end of treatment were the patients who were very strict to the course of treatment without missing many doses so the overall response was high

All over the study there is significant anaemia, leukopenia, thrombocytopenia and significant difference in SVR.

At the end of the study higher rate of haematological complications espicially anaemia may due to bad selection of patient for interferon plus ribavirin therapy or improper dose either for interferon or ribavirin or bad feeding of patient as wrong habit for many of patients infected with HCV lower response related to age may be explained immunologically as with aging there is decrease in both innat and induced immunity giving chance for appearance of new virus variant also there is decrease in T cell functions and reduce avialability of naive cells(**Chang KM 2003**). also explained by unproper care of all patients as patient may neglect one or more dose and this may be repeated, any way patient recieved interferon therapy gain benifit. So we recommend to prepare especial outpatient clinic for older patient>55years old attending for Interferon plus Ribavirin therapy.

SUMMARY AND CONCLUSION

Over all response was significantly lower in patients of age group 55-60 year than younger one (46% Vs 78%) however cure rate is acceptable and we recommend to continue treatment of this age group in special outpatient clinic for close observation and trial for better selection and proper investigation and good follow up and we recommend to do more study for effect of CSF (colony stimulating factor) and erythropiotin to combat haematological complications. Trial for new line of treatment as protease inhibitor, entry inhibitor and polymerase inhibitor.