



جمهورية العراق
وزارة التعليم العالي والبحث العلمي
جامعة بابل
كلية علوم النبات - قسم الكيمياء

Study of biochemistry parameters in heart disease

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الى لجنة المناقشة المحترمون وهو جزء من متطلبات نيل
شهادة البكالوريوس في علوم الكيمياء

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

((يَا أَيُّهَا الَّذِينَ آمَنُوا كُونُوا قَوَّامِينَ لِلَّهِ شُهَدَاءَ بِالْقِسْطِ وَلَا يَجْرِمَنَّكُمْ
شَتَانُ قَوْمٍ عَلَىٰ أَلَّا تَعْدِلُوا اعْدِلُوا هُوَ أَقْرَبُ لِلتَّقْوَىٰ وَاتَّقُوا اللَّهَ إِنَّ اللَّهَ خَبِيرٌ
بِمَا تَعْمَلُونَ))

صَدَقَ اللَّهُ الْعَلِيُّ الْعَظِيمُ

(سورة المائدة آية 8)

الإهداء

إلى صاحب السيرة العطرة، والفكر المُستنير؛

فلقد كان له الفضل الأوّل في بلوغي التعليم العالي

(والدي الحبيب)، أطال الله في عُمره.

إلى من وضعني على طريق الحياة، وجعلتني رابط الجأش،

وراعتني حتى صرت كبيرًا

(أمي الغالية)، امدّ الله في عمرها .

إلى جميع أساتذتي الكرام؛ ممن لم يتوانوا في مد يد العون لي

أهدي إليكم بحثي

شكر وتقدير

كن عالماً .. فإن لم تستطع فكن متعلماً ، فإن لم تستطع فأحب العلماء ،
فإن لم تستطع " فلا تبغضهم "

وأخص بالتقدير والشكر والداي اللذان علماني السلوك القويم، وأنا را حياتي
بقبسات الهداية و علماني أيضاً أن الصبر هو طريق النجاح ونقدم جزيل
الشكر الى الإدارة الجامعية التي سخرت جهودها من أجلنا لكي نعلو ...

وختاماً أشكر كل من ساهم ولو بكلمة أو نصيحة ولم يسع المقام ذكره وهم
كثير ... جزاهم الله عني خيراً والله الموفق .

Abstract

The study was designed to evaluate the medical relevance of Troponin levels, D-dimer levels, Serum urea levels and Creatinine levels in Cardiac disease(CD) and chronic renal failure(CRF) . Blood samples were taken from departments of a ministry of healthy hospitals. twenty patient (study group) and twenty healthy controls (group control). We found that significantly increased troponin level was demonstrated in Cardiac disease ($p < 0.01$). The mean D-dimer level in patient with renal failure was significantly higher than the control group ($p < 0.02$). In addition, the mean serum urea levels and creatinine levels in renal failure patients was significantly higher than the control group. Moreover, Troponin are considered as bio indicator for patient with damage in cardiac muscle while also, we D-dimer are considered as bio indicator for patient with renal failure

الجزء النظري

Introduction

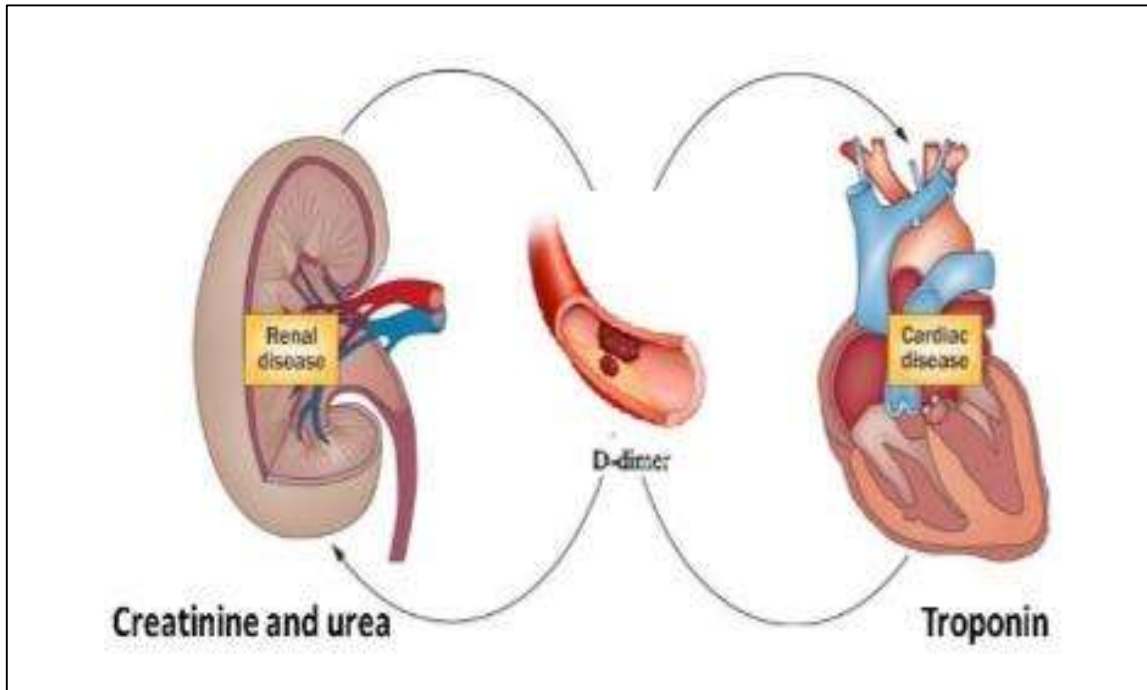
The risk of cardiovascular disease is substantially increased in patients with a

GFR below 60 mL/min/1.73 m² and in those with proteinuria, the combination of reduced eGFR and proteinuria being particularly unfavourable. Patients with

CKD have a higher prevalence of traditional risk factors for atherosclerosis, such as hypertension, hyperlipidaemia and diabetes; however, additional mechanisms of cardiovascular disease may also be implicated. Both left ventricular hypertrophy and cardiac calcification may increase the risk of arrhythmias and sudden cardiac death, which is a much more common mode of death in patients with CKD than in the general population, particularly in those with more advanced disease and those on dialysis.

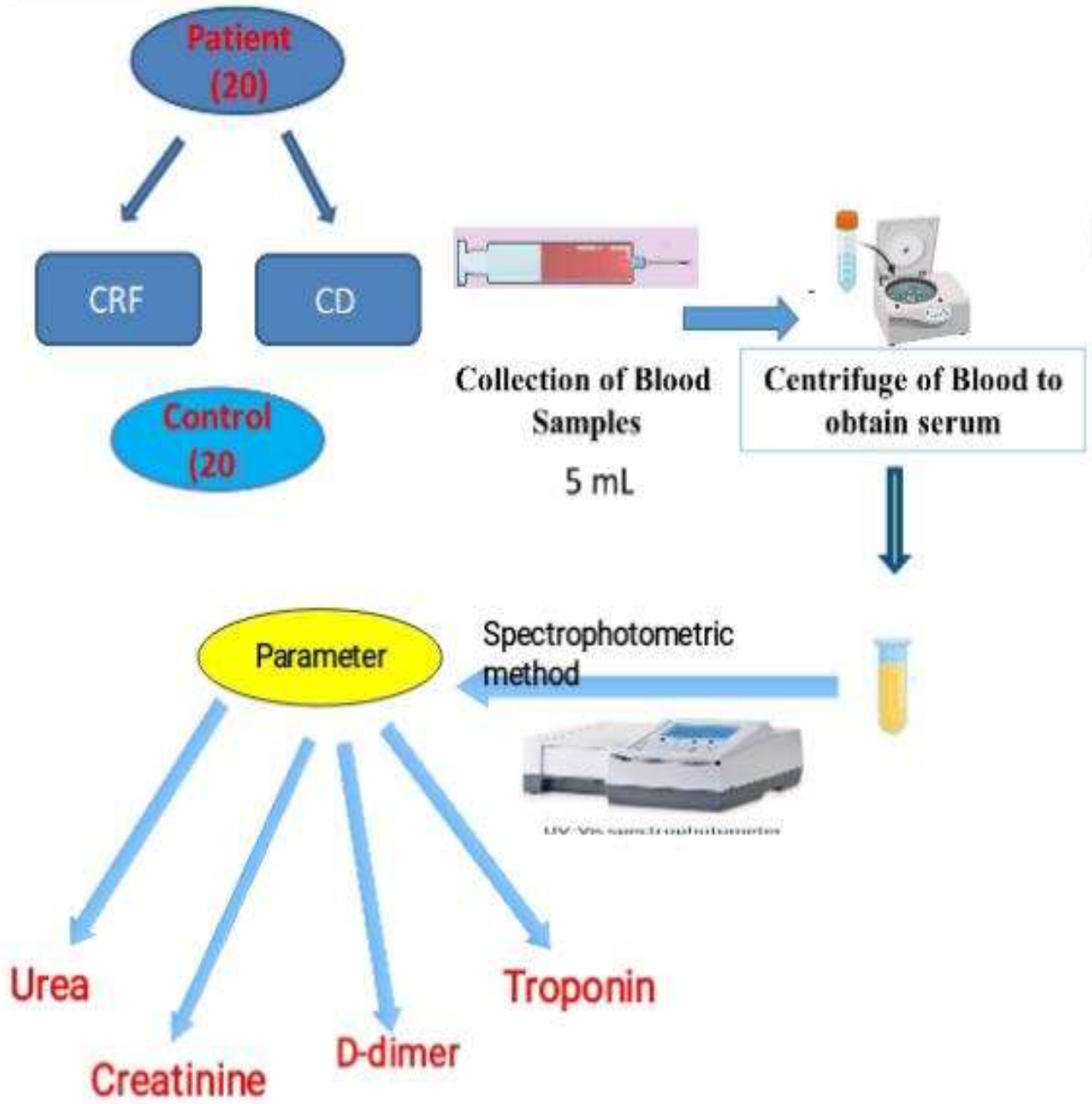
Moreover, the specificity of D-dimer testing for the Venous thromboembolism(VTE)diagnosis is even lower in patients with mild or moderate Chronic Kidney Disease (CKD). In these patients, the D-dimer level is associated with the CKD stage and disease pro-gression, because they often have several other comorbidities such as atherosclerosis and malignancy which are also associated with increased serum D-dimer levels. In my study was undertaken to evaluate Troponin levels, D-dimer Levels, Serum Urea

Levels and Creatinine Levels in Cardiac Disease and Chronic Renal Failure



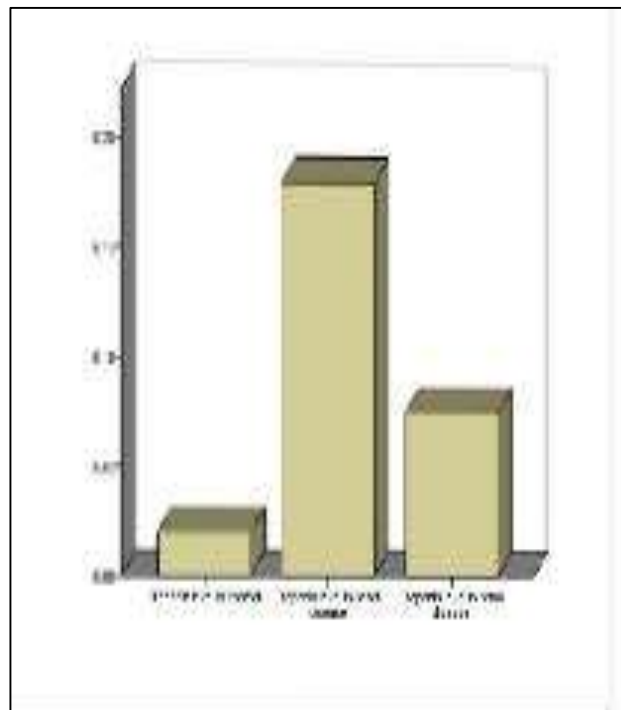
الجزء العملي

Experimental section



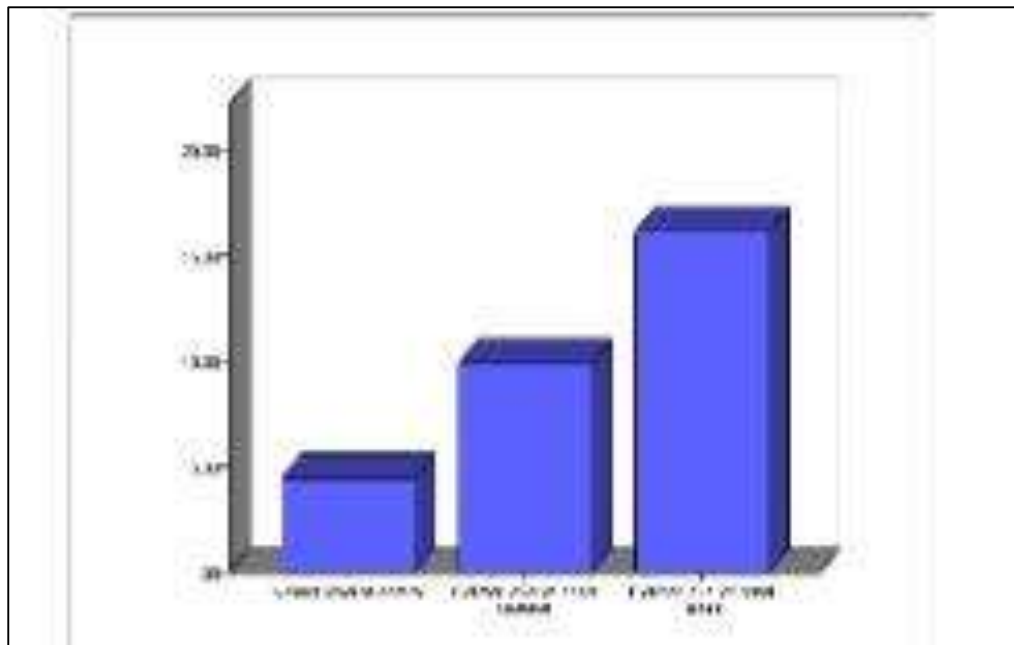
Results and Discussion

1-Study Troponin in patients with CRF, patients with CD and control

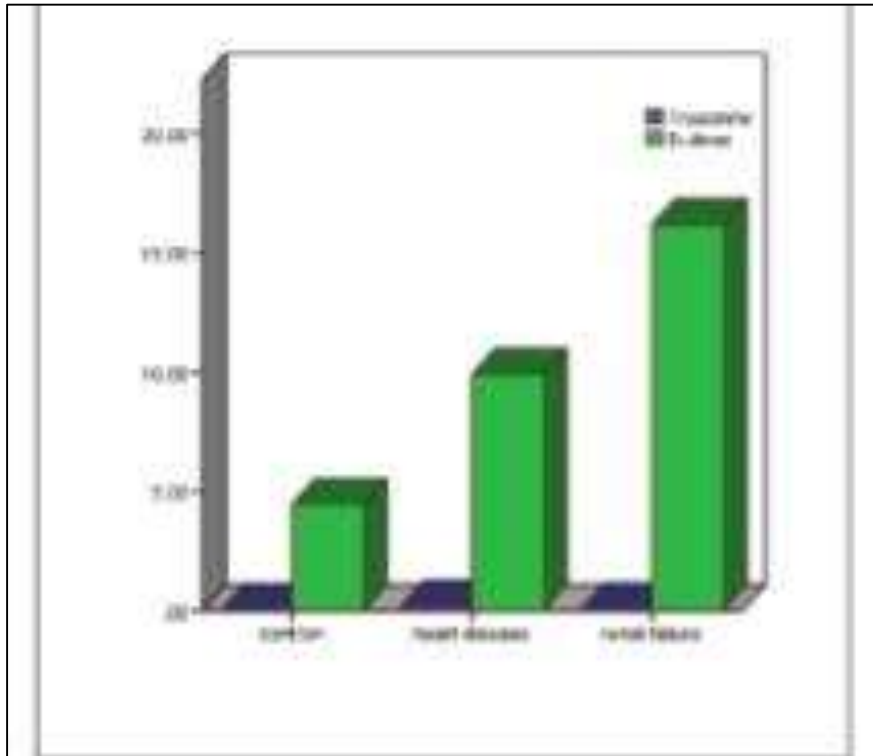


2-Study D-dimer patients with

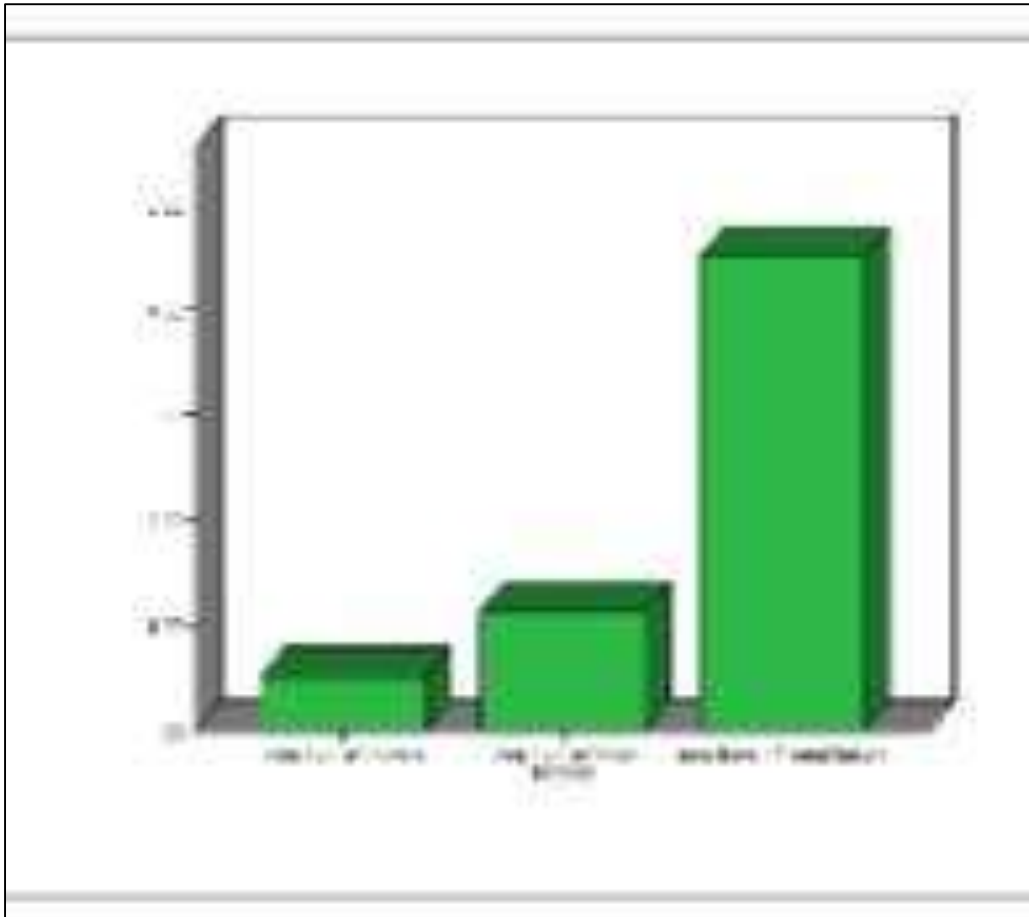
CRF, patients with CD and control



3-Study compare between Troponin and D-dimer all groups

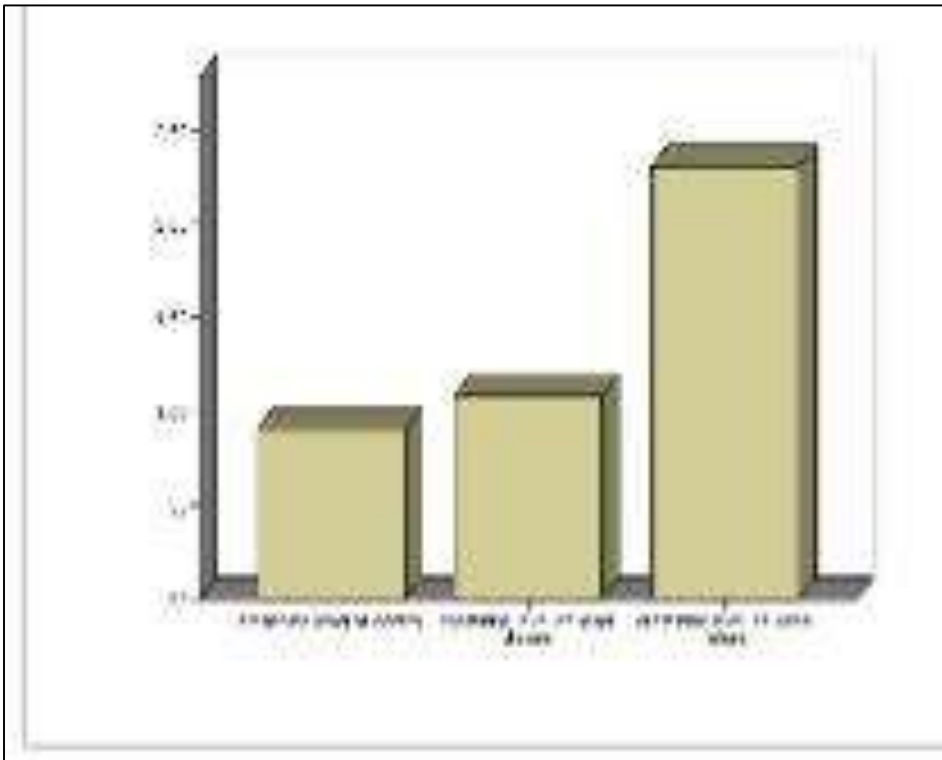


4-Study Urea patients with CRF, patients with CD and control

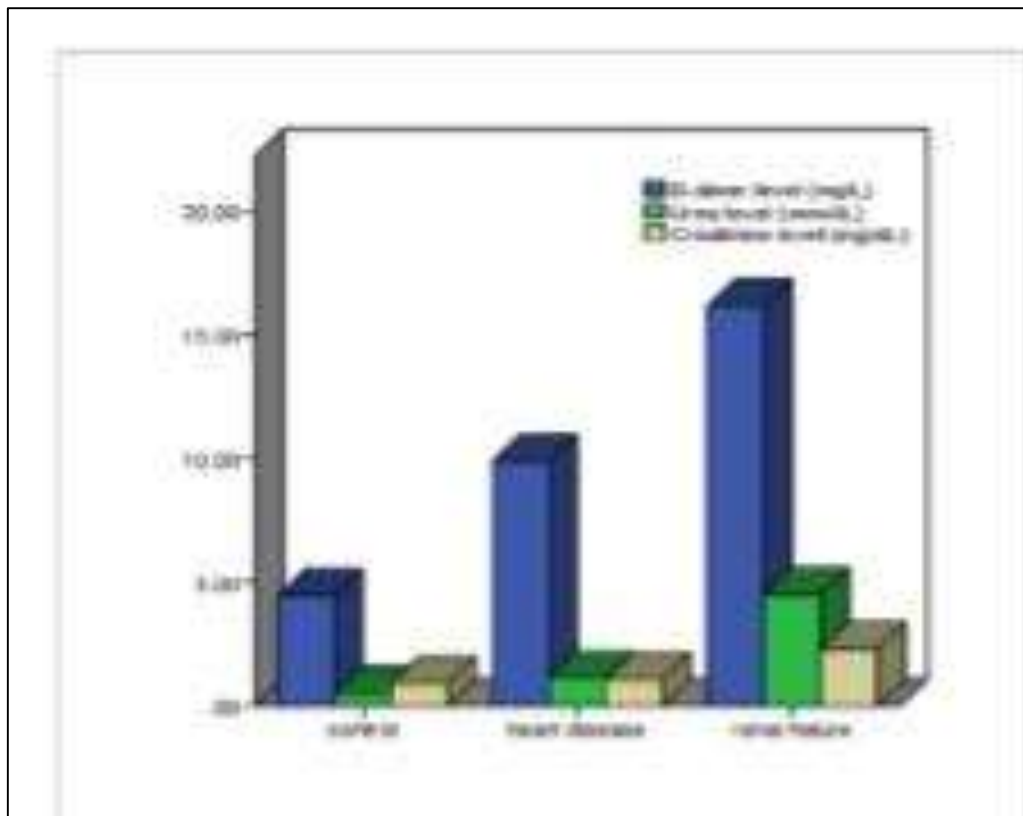


5Study Creatinine patients with

CRF, patients with CD and control



6-Study compare between D- dimer, creatinine and urea all groups



Conclusion

1- Troponin levels were demonstrated in Cardiac disease and it was more increased in CD than other groups

2- D-dimer levels were demonstrated in chronic renal failure(CRF) and they were more increased in CRF than other groups

. 3 Troponin are considered as bio indicator for patient with damage in cardiac musde.

4D-dimer are considered as bio indicator for patient with renal failure

References

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