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Declaration

This research was carried out by the undersigned at the Sudan University of Science &Technology. Sudan during the period October 2002 – 2004 an was not submitted for any degree before.

Salah Hassan Zakout …….

Dr. Mohammed Abd Elrahim ……

Abstract

Plasma fibrinogen, total cholesterol triglycerides, TroponinT and cardiac enzymes were measured in control and 53 patients admitted CCU at Elain Governmental Hospital (MAE) suffering acute chest pain and suspected as having myocardial infarction. The patients admitted the hospital at varying times of chest pain attack.

The results obtained from this study revealed that 67% of patients admitted the CCU of Elain Hospital were diagnosed as ECG positive, and 58% were elderly. The study also showed that 38% the chest pain patients were hypertensive, and 55% were diabetics. It also pointed out that the chest pain attack was at early morning in about 63%, and 37% of patents had the attack during the evening and most of them presented with severe stress and physical and emotional conditions. The study also demonstrated that about 46% of chest pain patients were heavily smokers, and the majority of them 72% did not claimed family history of MI disease, and 77% of then claimed that no incidence of sudden death in their families were occurred. Obesity was found in about 69% of the chest pain patients.

Fibrinogen concentration in control as well as chest pain patients were measured as soon CCU, admission after 10 – 12 hours following the chest pain attack and after 24 hours of chest pain attack. Three levels of plasma fibrinogen concentration

were obtained, high value, e.g. about 5.85 g/dL were found after 6 hours of chest pain attack in about 46% of patents, borderline value e.g. 3.43 g/L in about 30% of the patients, and lower value e.g. 2.24 g/L in about 24% of patients theses levels were persisted up to 24 hours of CCU admission before it then start to decline after 24 hours to give values of 4.37 g/L as high value in about 11% of patients, 2.87 g/L as middle value in about 56% of the patients, and 1.72 g/L in as low value in about 33% of .patients

It noticeable that the increase in plasma fibrinogen was .correlated with increased plasma viscosity

Total cholesterol and triglycerides were also found to elevated to a significant level when compared with control in chest pain patients. Triglycerides were highly elevated than total .cholesterol

The activity of all cardiac enzymes (LDH, AST, CK, CK-MB) and tropaninT were significantly raised in which CK-M,

.CK, and TroponinT were more elevated

تـــم قيـــاس كـــل مـــن الفـــبرينوجين، الكوليســـترول الكلـــي والجليسريدات الثلاثية ، إلي جانب التروبنين T والأنزيمات القلبية في عـــدد 53 مـــن المرضـــي الـــذين أدخلـــوا وحـــدة علاج القلـــب (CCU) بمستشفي العين الحكومي بدولة الإمارات العربيـة المتحـدة ويعـانون من الآم حادة في الصـدر حيـث أن المرضـي تـم إسـعافهم بإدخـالهم المستشفي في أوقات متفاوتة.

أوضحت الفحوصات السـريرية الأوليـة أن 67% مـن المرضـي الذين أدخلوا وحـدة علاج القلـب CCU كـانت لهـم نتـائج إيجابيـة عنـد إجراء رسـم القلـب (ECG) لـديهم، وأن حـوالي 58% مـن المرضـي كانوا في سن متقدمة من العمـر. كمـا أوضـحت الفحوصـات الأوليـة أيضاً أن 34% من المرضي يعانون من ارتفاع ضغط الدم وأن حوالي 55% منهم مصابين بمرض السكري.

كمـا أوضـحت الفحوصـات الأوليـة أيضـاً أن الآم الصـدر الحـادة كـانت فـي الصـباح البـاكر عنـد 63% وأن حـوالي 37% أثنـاء الليـل ومعظم المرضي الذين يعانون الآم الصـدر الحـادة فـي حالـة نفسـية متدهورة للغاية وفي غاية التعب والإجهاد عند إدخالهم المستشفي.

أوضحت الدراسة أيضاً أن 46% من المرضي يتعـاطون تـدخين السجائر باستمرار وأن 69% من ذوي السمنة.

أوضـحت الدراسـة أيضـاً أن 72% مـن المرضـي ليـس لـديهم حالات الإصابة بمرض احتشاء العضلة القلبيـة (MI) أو حـالات المـوت المفاجئ لدي الأسرة.

أوضحت الدراسة أن تركيـز الفـبرينوجين فـي بلازمـا المرضـي الذين يعـانون مـن الآم حـادة فـي الصـدر فـي حالـة ثلاث مسـتويات

تتراوح ما بين 5.85 g/L كنسبة عالية عند 46% من المرضي و 3.43 g/L عند 36% من المرضي كحالة متوسطة و 2.24g/L عند 24% من المرضي كنسبة منخفضة مقارنة بمتوسط الفبرينوجين عند فئة المقارنة (Control group) والذي يبلغ 1.76g/L وذلك خلال الستة ساعات الأولي من الإصابة بالآم الصدر الحادة ، تلي ذلك انخفاض في مستوي تركيز الفبرينوجين بعد 24 ساعة من إدخال المستشفي وتحت العلاج.

ولقد لوحظ أن مستوي تركيز الفرينوجين العادي متزامناً مع ارتفاع ملحوظ في لزوجة الدم.

أوضحت الدراسة أيضاً ارتفاع مستوي تركيز كل من الكوليسترول الكلي والجليسريدات الثلاثية عند مرضي احتشاء العضلة القلبية عند إدخالهم المستشفي وأن الارتفاع الأكبر في مستوي تركيز الجليسريدات الثلاثية.

أوضحت الدراسة أيضاً ارتفاع مستوي التروبنين T والأنزيمات القلبية لدي المرضي ولكن بدرجات متفاوتة حيث أن أكثر معدلات زيادة نشاط هذه الأنزيمات كانت في حالة كل من الـ CK CK-MB والتروبونين T.

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