



Prevalence of malnutrition and chronic pain in hemodialysis patients and their correlation with C – reactive protein: a cross-sectional study from Palestine.

Prepared by:

Aya Mizher 11542001

Heba Hammoudi 11524545

Farah Hamed 11613562

Abrar Shouli 11541480

1st supervisor: Dr Adham AbuTaha

2nd supervisor: Dr Sa'ed Zyoud

3rd supervisor: Dr Mohannad Hassan

4th supervisor: Dr Mazen AbdAlla

5th supervisor Dr: Mohammad Mazouz

2020-2021

Abstract

Background: End-stage renal disease (ESRD) is a common chronic disease around the world that necessitates hemodialysis. Patients may face malnutrition, chronic pain, and poor quality of life. Therefore, a better understanding of these variables in hemodialysis patients is essential to provide a good intervention.

Objectives: We aim to determine how common malnutrition and chronic pain are in hemodialysis patients and their correlation with C-reactive protein.

Methods: A Cross-sectional survey study in hemodialysis patients was conducted in An-Najah National University Hospital in Nablus, Palestine. The data collection took place in November and December 2020. We have used MIS to detect malnutrition severity. Moreover, for chronic pain assessment we have used Brief Pain inventory score and CRP levels were detected through lab tests. Data was collected using a convenience sampling technique.

Results: The number of participants in this study was two hundred and sixty-one. SPSS was used to analyze the data using the chi-square to test significance between categorical variables (P -value < 0.050). The average age of the participants was 51 years old, with 63.6% of them being men. 47.1% of them reported having unusual chronic pain. CRP level ($p < 0.001$), gender ($p = 0.011$), marital status ($p = 0.003$), educational status ($p = 0.010$), and number of chronic diseases ($p = 0.004$) all indicated a statistically significant relationship with the score of pain severity. 20% had $MIS < 9$ which is considered mild malnutrition, 22% had $9 \leq MIS \leq 18$ which means moderate malnutrition, and 55% with $MIS > 18$ suffered from severe malnutrition. Gender ($p = 0.036$), age ($p = 0.033$), education status ($p = 0.010$), occupation ($p = 0.004$), dialysis year ($p = 0.001$) and number of chronic diseases ($p = 0.002$) statistically significant association with malnutrition inflammation score. CRP level was not significantly associated with this score.

Conclusions: Our findings suggest that there is a strong correlation between the existence of chronic pain in hemodialysis patients and increased CRP levels, but there is no association between MIS and CRP levels in these patients.

Keywords: Hemodialysis, Malnutrition, Chronic Pain, CRP, Palestine.