Korelasi kadar asam lemak omega-3 plasma terhadap massa otot dan kekuatan genggam pasien kanker kepala leher dengan radioterapi = Correlation between omega 3 fatty acids plasma levels with muscle mass and hand grip muscle strength in head and neck cancer patients undergoing radiotherapy

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Abstrak

Penelitian ini merupakan penelitian potong lintang di Departemen Radioterapi Rumah Sakit Umum Pusat Nasional Dr. Cipto Mangunkusumo Jakarta, yang bertujuan untuk mengetahui korelasi antara kadar asam lemak omega-3 terhadap massa otot dan kekuatan genggam pada subjek kanker kepala leher yang mendapatkan radioterapi. Kaheksia kanker sering terjadi pada kanker kepala leher akibat peningkatan sitokin proinflamasi yang menyebabkan hipermetabolisme, peningkatan kebutuhan nutrisi, anoreksia, penurunan massa otot dan berat badan. Asam lemak omega-3 berperan dalam menurunkan inflamasi, meningkatkan massa otot, dan kekuatan genggam. Dari 52 subjek yang sudah mendapatkan radioterapi ge;25 kali, 57 adalah laki-laki dengan rerata usia di atas 50 tahun. Lokasi kanker paling banyak di area nasofaring, sebagian besar sudah berada pada stadium IV dan mendapatkan kombinasi radioterapi dan kemoterapi. Sebesar 38,5 dan 32,7 subjek berada pada kategori indeks massa tubuh normal dan kurang. Data yang diperoleh dari penelitian ini dapat memberikan gambaran kurangnya asupan energi, protein, lemak, dan asam lemak omega-3, serta massa otot sebagian besar subjek yang tergolong kecil 28,4 4,7 , dengan kekuatan genggam sebagian besar subjek tergolong normal, dan kadar asam lemak omega-3 plasma seluruh subjek yang tergolong rendah 2,5 0,8 . Data tersebut menunjukkan adanya masalah nutrisi pada pasien kanker kepala leher. Terdapat korelasi yang kuat antara kadar asam lemak omega-3 plasma terhadap massa otot r =0,6, p 50?60 Gy dan 50 Gy.

.....This cross sectional study conducted in the Department of Radiotherapy Dr. Cipto Mangunkusumo Hospital, aimed to investigate the correlation between omega 3 fatty acids plasma levels with muscle mass and hand grip muscle strength in subjects with head and neck cancer undergoing radiotherapy. Cancer cachexia is common in head and neck cancer as a result of the increasing of proinflammatory cytokines that cause hipermetabolisme, increased nutritional needs, anorexia, decreased muscle mass and body weight. Omega 3 fatty acids play a role in reducing inflammation, as well as improving muscle mass and hand grip. There were 52 subjects who had received radiotherapy ge 25 times, 57 were male with a mean age of 50 years. Most cancer sites were at nasopharynx area, mostly in stage IV and received a combination of radiotherapy and chemotherapy. There were 38,5 of the subjects in the normal body mass index and 32,7 were in low body mass index. The data from this study showed inadequate intake of energy, protein, fat, and omega 3 fatty acids, as well as muscle mass majority was small 28,4 4,7 , with most of the hand grip classified as normal, and the plasma levels of omega 3 fatty acids all of the subjects were low 2,5 0,8 . The data showed that there were nutritional problems in patients with head and neck cancer. There was strong correlation of plasma levels of omega 3 fatty acids with muscle mass r 0,8, p 50 60 Gy and 50 Gy.