Pengaruh jam terbang total dan faktor lainnya terhadap risiko diabetes mellitus pada pilot sipil di Indonesia = The effect of total flight hours and risk of diabetes mellitus in civilian pilots in Indonesia / Darma Syahputra

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Abstrak

Latar belakang : Diabetes Mellitus (DM) dapat terjadi pada pilot sipil akan menyebabkan struk dan gangguan kardiovaskular sehingga membahayakan keselamatan penerbangan. Tujuan penelitian ini adalah identifikasi kaitan total jam terbang dan faktor lainnya terhadap DM pada pilot sipil di Indonesia.
Metode : Penelitian menggunakan metode potong lintang dengan sampel purposif pada pilot sipil di Indonesia yang melakukan pemeriksaan kesehatan berkala di Balai Kesehatan Penerbangan pada tanggal 26 Mei ? 6 Juni 2015. Pengumpulan data menggunakan formulir kuesioner, pemeriksaan fisik dan laboratorium. Data yang dikumpulkan adalah karakteristik demografi dan pekerjaan, kebiasaan makan, indeks massa tubuh (IMT) dan kebiasaan olah raga. Kategori Diabetes Mellitus berdasarkan PERKENI.
Hasil: Diantara 690 pilot yang melakukan pemeriksaan medis, 428 subjek bersedia mengikuti penelitian. Subjek yang diikutsertakan dalam analisis sebanyak 292, 10,3% memiliki kadar gula puasa tinggi dan 89,7% memiliki kadar gula puasa normal. Jika dibandingkan subjek dengan jam terbang 16-4999 jam subjek dengan jam terbang 5000-27500 jam mempunyai risiko lebih besar menyandang DM risiko relatif suaian (RRa)=2,86; 95% interval kepercayaan (CI)=1,38-5,94; p=0,005]. Selanjutnya dibandingkan pilot dengan IMT normal, pilot dengan obesitas memiliki risiko lebih besar menyandang DM (RRa=3,29; 95% CI=0,76-14,29; p=0,111).
<hr>Background : Diabetes Mellitus (DM) can occur in civilian pilots will lead to a stroke and cardiovascular disorders, endangering flight safety. The purpose of this study was the identification of linkages total flying hours and other factors against the DM at civilian pilot in Indonesia.
Methods: A cross-sectional study using the method with a purposive sample in civilian pilots in Indonesia, which performs periodic health checks on Flight Health Center on May 26 to June 6, 2015. The data were collected using a questionnaire form, physical examination and laboratory findings. The data collected were the demographic characteristics and work, eating habits, body mass index (BMI) and exercise habits. DM classification based on standard PERKENI.
Results : Among the 690 pilots who conduct medical examination, 428 subjects were willing to follow the study. Subjects were included in the analysis as much as 292, 10.3% had high fasting glucose levels and 89.7% had normal fasting glucose levels. Compare to the pilots with total flight hours 16-4999 hours, pilots total flight hours 5000-27500 had 2.86 higher risk DM [RRa = 2.86; 95% CI = 1.38 to 5.94; p = 0.005]. Furthermore, compared to the pilot with normal BMI, the pilot with obesity had 3.3 higher risk DM (RRa = 3.29; 95% CI = 0.76- 14.29; p = 0.111).
Conclusions: The pilots who had total flight hours 5000 hours or more and obese had higher risk to be DM.