Proporsi Pneumokoniosis pada pekerja tambang kapur di Desa Citatah Kabupaten Bandung Barat = Proportion of Pneumoconiosis among limestone worker in Citatah Vilage, West Bandung District

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Abstrak

Latar belakang : Debu silika, asbestos dan batu bara berhubungan dengan pneumokoniosis pada pekerja tambang. International Labour Organization (ILO) melaporkan 30-50% pekerja pada negara berkembang terdiagnosis pneumokoniosis. Penelitian ini bertujuan mengidentifikasi pneumokoniosis pada pekerja tambang kapur di Indonesia.
Metode: Studi cross-sectional melibatkan subjek 73 pekerja tambang kapur di Desa Citatah Kabupaten Bandung Barat, Indonesia. Dua kesimpulan yang sama dari tiga pembaca foto yang memiliki sertifikat AIR-Pneumo dengan membaca secara blind dan menggunakan panduan ILO.
Hasil: Pneumokoniosis ditemukan pada 11/73 (15,1%). Median umur dari kelompok pneumokoniosis lebih tua dibandingkan kelompok bukan pneumokoniosis (51 [33-63] vs. 37.5 [18-85] umur dalam tahun, p=0.013). Seluruh subjek pada kelompok pneukoniosis bekerja > 6 tahun (p=0.001). Konsentrasi debu tertinggi pada kelompok pneumokoniosis dibandingkan kelompok yang bukan pneumokonisosis (61.41Â±103.98 vs. 14.92Â±55.17 mg/m3, p=0.030). Penelitian ini menunjukan lama bekerja dan kadar debu pada tambang merupakan faktor risiko pneumokoniosis walaupun tidak bermakna (OR=14.6, p=0.999 and OR=7.171, p=0.998).
Kesimpulan: Proporsi pneumokoniosis pada pekerja tambang kapur pada penelitian ini sebesar 15,1% . Lama bekerja dan kadar debu pada tambang merupakan faktor risiko pneumokoniosis; namun tidak bermakna dalam penelitian ini.
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Background: Silica, asbestos, and coal dusts correlate with pneumoconiosis in mineworkers. The International Labour Organization (ILO) reported that 30-50% of workers in developing countries were diagnosed with pneumoconiosis. This study aimed to identify pneumoconiosis among limestone workers in Indonesia.
Method: This cross-sectional study involved 73 limestone mineworkers from two limestone mining sites in Citatah Village, West Bandung Regency, Indonesia, as the subjects. Two out of three AIR-Pneumo-certified blinded readers decided the conclusive chest x-ray (CXR) report of pneumoconiosis for each subject according to the ILO guidelines.
Results: Pneumoconiosis was found in 11/73 (15.1%) subjects. The median age of pneumoconiosis group was older compared to the non-pneumoconiosis group (51 [33-63] vs. 37.5 [18-85] years old, p=0.013). All subjects in the pneumoconiosis group were of >6 years of working duration (p=0.001). The dust concentration was higher at the mining site of the pneumoconiosis group compared to the mining site of the non-pneumoconiosis group (61.41Â±103.98 vs. 14.92Â±55.17 mg/m3, p=0.030). This study showed that working duration and mining site dust concentration were risk factors for pneumoconiosis; however, with no significance (OR=14.6, p=0.999 and OR=7.171, p=0.998, respectively).
Conclusion: The proportion of pneumoconiosis in limestone mine workers in this study was 15.1%.

Working duration and mining site dust concentration were risk factors for pneumoconiosis; however, no significance was found from this study.