

ABSTRAK

Latar Belakang: Bisinosis adalah penyakit pernapasan kronis akibat paparan debu kapas yang terutama menyerang pekerja tekstil. Data mengenai prevalensi bisinosis di Indonesia, khususnya di Semarang, masih terbatas. Penelitian ini bertujuan untuk mengidentifikasi faktor risiko bisinosis pada pekerja tekstil.

Metode: Studi kasus-kontrol ini dilakukan di sebuah pabrik tekstil dengan melibatkan 97 peserta. Data dikumpulkan melalui kuesioner, pemeriksaan fisik, laboratorium, kemudian dianalisis menggunakan metode bivariat dan multivariat.

Hasil: Dari 97 peserta, 46,4% didiagnosis bisinosis. Analisis bivariat menunjukkan hubungan signifikan antara bisinosis dengan paparan debu kapas tinggi ($p = 0,031$), ketidakpatuhan penggunaan alat pelindung diri ($p = 0,037$), dan masa kerja lebih dari 24 tahun ($p = 0,002$). Analisis multivariat menunjukkan bahwa paparan debu kapas tinggi meningkatkan risiko kejadian bisinosis (OR = 5,7; IK 95%: 1,3–25,9); $p = 0,024$). Masa kerja ≥ 24 tahun juga meningkatkan risiko (OR = 4,5; IK 95%: 1,7–11,9; $p = 0,002$). Kadar eosinofil absolut $\geq 238,5$ berhubungan dengan peningkatan risiko kejadian bisinosis (OR = 6,1; IK 95%: 2,3–16,3; $p = 0,001$).

Kesimpulan: Bisinosis umum terjadi pada pekerja tekstil di Indonesia. Faktor risiko utama meliputi paparan debu kapas tinggi, lama bekerja, ketidakpatuhan penggunaan alat pelindung diri, dan kadar eosinofil yang tinggi. Pengendalian debu yang efektif, kepatuhan penggunaan alat pelindung diri, dan pemantauan kesehatan rutin penting untuk mengurangi risiko bisinosis.

Kata Kunci: Bisinosis, debu kapas, kesehatan pernapasan, faktor risiko, alat pelindung diri

ABSTRACT

Background : Byssinosis is a chronic respiratory disease caused by cotton dust exposure, mainly affecting textile workers. Data on byssinosis prevalence in Indonesia, especially in Semarang, are limited. This study aims to identify risk factors for byssinosis among textile workers.

Methods : A case-control study was conducted in a textile factory with 97 participants. Data were collected through questionnaires, physical examinations, laboratory tests, and analyzed using bivariate and multivariate methods.

Results : Of the 97 participants, 46.4% had byssinosis. Bivariate analysis showed significant associations between byssinosis and high cotton dust exposure ($p = 0.031$), non-compliance with personal protective equipment use ($p = 0.037$), and working for over 24 years ($p = 0.002$). Multivariate analysis confirmed that high cotton dust exposure increased the risk of byssinosis (OR = 5.7; 95% CI: 1.3–26.0; $p = 0.024$). Working for over 24 years also increased the risk (OR = 4.5; 95% CI: 1.7–11.9; $p = 0.002$). Elevated eosinophil counts (≥ 238.5) were associated with higher risk (OR = 6.1; 95% CI: 2.3–16.3; $p = 0.001$).

Conclusion : Byssinosis is prevalent among textile workers in Indonesia. Key risk factors include high cotton dust exposure, long working duration, non-compliance with personal protective equipment use, and elevated eosinophil levels. Implementing effective dust control, ensuring consistent use of personal protective equipment, and conducting regular health monitoring are essential to reduce byssinosis risk.

Keywords: Byssinosis, cotton dust, respiratory health, risk factors, personal protective equipment