Insiden heat cramp pada pekerja divisi produksi PT IK., Jatake, Tangerang = Incidence of heat cramp among workers from manufacture department, PT. LK, Jatake, Tangerang

Zein Renaldy, author

Abstrak

Latar Belakang : Penyakit akibat panas masih menjadi masalah umum di era globalisasi seiring dengan pembangunan di sektor industri. Di dalam proses produksi pembuatan keramik yang memerlukan pembakaran dengan suhu tinggi hingga mencapai 2000°C adalah sumber panas bagi para pekerja Hilangnya cairan melalui proses evaporasi akan berakibat terjadinya dehidrasi yang kemudian dapat meningkatkan risiko terjadinya heat cramp.
Metode: Metode penelitian cross sectional digunakan untuk mengevaluasi insiden hear cramp Pengumpulan data dilakukan melalui distribusi kuesioner, pemeriksaan suhu tubuh dan pengumpulan sampel urin. Pengukuran berat jenis urin menggunakan refreactometer ATAGO Uricon NE. Dinyatakan status dehidrasi apabila nilai berat jenis urin >l,030. Pengukuran suhu tubuh setelah bekenja menggtmakan temnometer badan. Apabila suhu tubuh Z 38° dapat dipertimbangkan sebagai faktor risiko terjadinya heat cramp. Suhu lingklmgan kerja diukur dengan menggunakan WBGT (Wet Bulb Global Temperature) QUESTemp°36 setiap 30 menit pada titik yang telah ditentukan pada waktu yang berbeda.
Hasil Penelitian: Insiden terjadinya kram otot ditemukan pada 79 dari total 179 responden (44.I3%). Data menunjukkan bahwa ll responden (6.15%) mempunyai nilai BJ urine >l.030 dan 4 responden (2.23%) dilaporkan dengan suhu tubuh > 38°C setelah 4 jam bekenja. Nilai rata-rata /mean pengukuran suhu dengan WBGT) > TLV ditemukan pada divisi Glaze (30.25°C; SD =2.82) dan pada divisi Firing (33.25°C; SD=3.25). Dari 39 responden yang bekexja di lokasi kerja dengan suhu > 28°C; 28 respondcn dilaporkan mengeluh kram. Dari 30 responden yang memiliki lama kelja < 1 tahun; 8 dilaporkan mengeluh kmm. Analisa data multivariat menunjukkan bahwa risiko terkena heat cramp lebih rendah pada masa kerja >1 tahun (P=0.04; RR=0.l39) akan tetapi lebih tinggi pada suhu kelja panas \VBGTi >28°C (P=0.0I; RR=3.39).

Kesimpulau: Tekanan panas dan masa kerja berhubungan dengan insiden heat cramp.
.....Background: Heat stress is still a common health problem in this globalization era throughout development in industrial sector. Production process on manufacture machine which using fumace until 2000°C to make ceramic products, is the main source of heat stress for workers. Water lost due to evaporation process will lead to dehydration state, could make tightening of the muscle. This will increase incidence of heat cramps.
Method: Cross sectional study was conducted to evaluate incidence of heat cramp. Data was collected based on distribute Questionnaire, Body temperature and mine sample. Refractometer ATAGO Uricon NE. was used to access urine specific gravity (USG) before and after work; state of dehydration is deiine by USG score >l,030. Body temperature after work was measured by body thermometer; should temperature hit 238°C, will consider as a risk factor for heat crarnp. Working environment condition was measured with Wet Bulb Global Temperature (WBGT) QUESTemp°36 every 30 minutes each spot in different time.
Result: Incidence of CIZIIII5 was found on 79 from total 179 respondents (44.l3%). Data showed that ll

respondents (6.15%) have Urine Specilic Gravitation >l.030 and only 4 respondents (2.23%) were reported have body temperature after work > 38°C. The mean score of heat measure in Glaze division (30.25°C; SD =2.82) and Firing division (33.25°C; SD=3.25) >TLV. F rom total 39 respondents whom work in environment with temperature > 38°C; 28 respondents among them had cramps problems. From 30 respondents whom have working experiences less than I year, only 8 reported have cramps. Multivariate analysis showed that possibility risk of having heat cramp is low by respondents with working period > 1 year (P=0.04; RR=0.l39) but high possibility whom work in heat stress environment, WBGTi > 28°C (P=0.0l; RR=3.39).
Conclusion: Working period and heat environment are associated with risk of having Heat cramp.