Musculoskeletal disorders in salted chicken cutting workers

Ren-Liu Jang, Ching-Yu Chien

Ming Chi University of Technology, TAIWAN

The cutting tasks of salted chicken required high coordination between workers and hand tools, yet no discussion on these tasks had been made from ergonomics points of views. 16 participants were recruited, 8 male and female each, in which 8 participants had experience in performing the cutting tasks and the other 8 does not. Three different types of scissors were used to perform the cutting tasks and each worker’s wrist motions were recorded. Their forearm muscles strength and perceived discomforts were also taken in for analysis.

The results showed that muscles strength and wrist movement angles were significantly affected by gender and experience (p<0.05), showing that female workers in the salted chicken business were in the high-risk group of musculoskeletal disorders, relatively. Participants with no experience were afraid of getting injuries and therefore, they performed slower in each tasks, resulting in lower muscle load than experienced participants. Participants with experience, however, prevented injuries by avoiding the bending of their wrists.

Scissor types also had a significant influence on the participants’ perceived discomfort (p<0.05). The results indicated that the smaller the finger holes on the scissors were, the greater the degree of discomfort it caused. Using scissors with bent handles resulted in minimum degree of wrist ulnar deviation, so it brought wrist discomfort less.

The results of this study could provide the salted chicken industry of hiring and scissors selection and of reference for MSDs prevention.

Reference

