DR SOMNATH

MD,DTM&H,

Director & Chief Of Medicine & Critical Care

Hyderabad Medical Centre

OCCUPATIONAL HAZARDS IN TEXTILE INDUSTRY

- The textile industry has plenty of departments such as weaving, spinning, dyeing and printing

- The professionals in the textile industry are exposed to various hazards such as physical hazards, chemical hazards and biological hazards, psychosocial hazards such as mental stress and psychological imbalance

- In a study, it is stated that the lung-related disease stands first in the row of occupational hazards in the textile industry, followed by the reproduction system disorder, noise-induced hearing loss, heart-related and vision-related diseases, Neurotoxicity and other dermatological conditions and mental stress.

- The common risk factors identified as the lack of awareness among the workers on their occupational hazards and the prolonged exposure due to unusual work timings **[8]**. The workers involved in the dyeing process are found to be conquered by these respiratory disorders **[9].** The smokers were found to be significantly more affected by the declines in respiratory function **[10].**

- The workers are highly exposed to specks of dust from various materials like wool, cotton, hemp, flax, sisal and few other materials which can occur during various processes that are carried out in the textile industries [3]. At the time of inhalation, these dust particles travel through our respiratory tract and enter our lung, alveoli are the last part in the respiratory system it filters the dust completely and transfers the inhaled oxygen to the bloodstream. The trapped dust particles remain to settle in the alveoli and prevent the further diffusion of oxygen to the blood cells. This issue leads to various respiratory disorders among workers.

. BYSSINOSIS

- Exposure to cotton dust for a high period may lead to a deadly disease called byssinosis usually known as the brown lung. This disease is indicated by difficulties in breathing, chest tightening, wheezing.

DIFFUSE LUNG DISEASE

- This type of disease is characterized by the degradation of the interstitial connective tissues which is present between the lung portion and the alveoli.

DRY COUGH

- Persons working in the cotton dust exposure zone experienced the effect of chronic cough. chronic cough is signified as prolonged coughing for a period of 3 months. It is defined as the dry cough only from the throat and not from deep down. It causes irritation in the throat due to the inhalation of allergic cotton dust. The chronic cough differs from usual asthma but it is the progression towards asthma. It was clearly proven in a study conducted by Ahasan, Ahmed and Khan to assess the occupational exposure among the textile sector workers that almost 16.8 % of the total subjects in the exposed workers were found the symptoms of chronic dry cough, and about 2.9 % of the total subjects in the non-exposed workers were found the symptoms of the same

CHRONIC BRONCHITIS.

- A study by AV Hinson defines chronic bronchitis as the regular cough accompanied by the mucus fluid from the respiratory tract for a period not less than three months.
- 3.5% in the exposed while at 0.9% in the non-exposed people

TOXICLIVER DISEASE.

- he dimethylformamide is usually a solvent that is defined to have excellent properties and hence It is mainly used in the aramid fibres which contributed a major per cent of the military fabrics.
- It is clarified that dimethylformamide is accountable for toxic liver diseases and could be a carcinogenic chemical that may lead to cancer in living beings and it also affects the reproducing system in women and leads to birth defects

NOISE INDUCED HEARING LOSS (NIHL)

- Any undesirable signal is termed to be the noise. Theoretically, there are three classifications of noise such as continuous noise, impact noise and intermittent noise. The regulations in Tamilnadu shows that 90 dBA for the continuous noise for 8-hour exposure, 140 dB for the impact noise not exceeding 100 impacts a day.

DEPARTMENT	NOISE LEVEL (dBA)	
	Range	Average
Weaving	94-100	97
Spinning	94-96	95
Blowing	85-89	87
Carding	85-87	86
Engineering and maintenance	85-89	87
Cone- winding	85-91	90
Washing and bleaching	83-85	84
Dyeing and Printing	80-85	83
Packing and storage	64-75	68
Administration	40-60	56

DISCUSSION

- Women are most affected by these diseases than men. The worst part observed that no proper preventive measures are taken by the management such as lack of awareness programs and lack of the required facilities, it has its main source from poor funding from the management. In most cases, professionals are not told about their occupational hazards and that may stand as a major reason for their exposure to hazardous particles, it is believed that the awareness of health conditions could have possibly reduced the occurrence of these diseases.

CONCLUSION

- it is evident that the superiority of these diseases found significantly higher than those of the non-exposed individuals.
- The superiority of these diseases varies in the sector according to typical climatic conditions, the nature of the working environment, gender, age.

THANKS FOR PATIENCE