ROLE OF FAMILY PHYSICIANS IN OSH

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HEALTH EFFECTS OF LEAD EXPOSURE AMONG JUA KALI WORKERS IN MOMBASA, KENYA: A case study of the "Express" Jua Kali workers.

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OUTLINE OF MY PRESENTATION

1. FIRST CASE STUDY
2. SECOND CASE STUDY
3. IMPORTANCE & ROLE OF F.P.s IN OSH
4. CONCLUSION

CASE STUDY 1

A 38-year-old man reported several weeks of generalized headaches. No other symptoms.

Vital signs normal.

Neck soft, kernigs negative.

No neurological deficit

Systemic exam – normal.

A diagnosis of stress-tension headache was made, and he was given an analgesic.

Since the headache persisted, computed tomographic (CT) scanning was performed.

The CT scan was normal.

The patient was referred to a neurologist.

Numerous tests done – all essentially normal.

Various treatments were applied without effect.

Occupational history revealed that he had been a spray painter for 2 years.

Whats the possible diagnosis?

While at work, he was routinely exposed to lead & mixed organic solvents. When he was taken out of work for four weeks, his headache gradually subsided.

POSSIBLE DIAGNOSIS

- ✓ LEAD POISONING

CONFIRMATION TESTING

- ✓ BLOOD LEAD LEVELS ELEVATED

BRIEF INFO ABOUT LEAD

Lead (Pb) is a heavy metal like mercury and arsenic

No health benefits in the body

Lead can enter the body through

- inhalation
- ingestion
- absorption from the skin

Workers likely to be affected

- Radiator repairers
- Painters – spray painters
- Plumbers
- Battery recyclers
- Petroleum industry
- Cosmetics
- ammunitions

Effects of lead

Lead poisoning can happen if a person is exposed to very high levels of lead over a short period of time. When this happens, a person may feel:

- **Abdominal pain**
- **Constipated**
- **Tired**
- **Headache**
- **Irritable**
- **Loss of appetite**
- **Memory loss**
- **Pain or tingling in the hands and/or feet**
- **Weak**

Because these symptoms may occur slowly or may be caused by other things, lead poisoning can be easily overlooked. Exposure to high levels of lead may cause anemia, weakness, and kidney and brain damage. Very high lead exposure can cause death

CASE STUDY 2

30 year old lawyer presented at a clinic with the following complaint:-

severe shoulder pains

No history of trauma.

No history of fever

Has been treated several times with similar complaints without much improvement.

Sometimes skin rash do appear on the shoulder area (not the Shingles type) which were itchy.

Xays and MRI done were normal.

Case presentation..

Upon further interrogation - the lawyer used to go for scuba diving on weekends – hobby.

What's the possible diagnosis?

DECOMPRESSION SYNDROME

BENDS

Divers disease

condition arising from dissolved gases coming out of solution into bubbles inside the body on depressurisation. DCS most commonly refers to problems arising from underwater diving decompression (i.e., during ascent), but may be experienced in other depressurisation events such as emerging from a caisson or flying in an unpressurised aircraft at altitude

Since bubbles can form in or migrate to any part of the body, DCS can produce many symptoms, and its effects may vary from joint pain and rashes to paralysis and death.

MANAGING DECOMPRESSION SYNDROME

Risk of DCS caused by diving can be managed through proper decompression procedures and contracting it is now uncommon. Its potential severity has driven much research to prevent it and divers almost universally use dive tables or dive computers to limit their exposure and to control their ascent speed. If DCS is suspected, it is treated by hyperbaric oxygen therapy in a recompression chamber.

Prevalence of occupational diseases

Occupational exposures contribute to the morbidity and mortality of many diseases. However, occupational diseases continue to be under-recognized even though they are responsible for an estimated 860,000 illnesses and 60,300 deaths each year in U.S.

It is estimated that every day 6,300 people die as a result of occupational accidents or work-related diseases resulting in over 2.3 million deaths per year (ILO 2010).

WHY FAMILY DOCTOR

The patient with a possible work-related illness or occupational disease frequently seeks care initially from a family physician. The physician's recognition of a possible link between work and disease often determines the diagnostic tests that are performed and the treatment that is recommended

IMPORTANCE OF EARLY DIAGNOSIS

Early diagnosis of an occupational illness may prevent progressive morbidity and disability from conditions such as occupational asthma and may facilitate the reversal of adverse effects from exposures to substances such as lead.

1. The identification of an occupational illness in one patient also provides the physician with an opportunity to protect other patients with similar exposures.

2. Since much remains to be learned about the effects of toxins on health, the family physician is in a crucial position to contribute new information about occupational disease.

DIAGNOSING OCCUPATIONAL DISEASES

physicians need to :

1. raise their level of suspicion for occupational disease
2. build skills for efficiently obtaining an occupational history and
3. develop routine access to occupational medicine resources.

ROLE OF FAMILY PHYSICIANS

Family physicians can play an important role in:

1. improving the recognition of occupational disease
2. preventing progressive illness and disability in their own patients
3. contributing to the protection of other workers similarly exposed.

This role can be maximized if physicians raise their level of suspicion for workplace disease, develop skills in taking occupational histories and establish routine access to occupational health resources

HOW CAN WE ACHIEVE THIS

This role can be maximized if

1. physicians raise their level of suspicion for workplace disease
2. develop skills in taking occupational histories
3. establish routine access to occupational health resources

HISTORY TAKING

- OCCUPATIONAL HISTORY
- EXACT NATURE OF WORK
- DURATION AND TIMES OF WORK
- TYPES OF HAZARDS EXPOSED - NOISE, DUST, CHEMICALS, FUMES, RADIATION

HISTORY TAKING..

- PSYCHOLOGICAL – PROLONGED WORK HOURS, DEADLINES & TARGETS, BULLYING , VIOLENCE.
- PART TIME JOBS, HOBBIES
- PREVIOUS/PAST OCCUPATIONAL HISTORY
- TIMES OF SYMPTOMS IN RELATION TO WORK.
- CIGARRETTE SMOKING & ALCOHOL INTAKE

CHALLENGES IN DIAGNOSING OCCUPATIONAL DISEASES

1. SIMILARITIES IN CLINICAL PRESENTATION AND PATHOPHYSIOLOGY BETWEEN OCCUPATIONAL DISEASE NON OCCUPATIONAL DISEASE
2. LONG LATENCY PERIOD BETWEEN EXPOSURE AND SYMPTOM ONSET
3. MULTI FACTORIAL ETIOLOGY OF MANY CHRONIC DISEASES
4. UNDER REPORTING OF WORK RELATED DISEASES

CONCLUSION

1. AS THE POPULATION OF THE WORKERS (ESPECIALLY IN THE FORMAL SECTOR) INCREASE SO DO THE OCCUPATIONAL DISEASES (O.D) AND THE WORK-RELATED DISEASES (W.R.D).
2. DESPISPITE THESE INCREASES MANY OF THE O.D & W.R.D GO UNNOTICED OR UNREPORTED
3. SINCE WE HAVE VERY FEW OCCUPATIONAL PHYSICIANS, WE NEED TO EDUCATE AND TRAIN G.P.s and F.P.s TO DIAGNOSE AND MANAGE O.D & W.R.D.s.

THANK YOU