Epidemiological study of phthiriasis among Patients with psychiatric disorders at Al- Rashad Mental hospital.
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Abstract:

The present study was conducted to evaluate the distribution of phthiriasis among Patients with psychiatric disorders. To attain the goal of our study, it was conducted among one thousand and thirty hundred (1013 male and 287 female) from both sexes, their ages ranging between 15-55 years, these patients were hospitalized as psychiatric patients, the study done during eight months at the years 2014 and 2015. An insect have been diagnosed by University of Baghdad - Iraq's Natural History Museum and has been diagnosed as follows: prying lice on humans Pediculus humanus (Linn.) Anoplura, Pediculidae. These epidemiological study image incidences of infectious rate were higher in male (62.86%) than females (37.14%), with a high significant difference variation.

Introduction:

Lice are ectoparasites live outside on the human body is grayish, wingless, and somewhat flattened parasitic insects that belong to parasitic insects, Phthiraphtera Insecta, suborder Anoplura, of hematophagic habits that develop all its life cycle over the host [1]. Most lice are scavengers, feeding on skin and other debris found on the host's body, but some species feed on sebaceous secretions and blood, after the skin piercing and sucking the blood through their mouth. The area bitten becomes itchy due to an allergic reaction and inflamed, and often infected from scratching [2]. During recent years head louse infestations have increased globally, because of increased resistance to insecticidal shampoos [3]. Adult lice generally live for about 30 days, but cannot survive for long if removed from their host. Female lice are usually more common than the males, and some species are even known to be parthenogenetic. A louse's egg is commonly called a nit. Many lice attach their eggs to their host's hair with specialized saliva; the saliva/hair bond is very difficult to sever without specialized [1].

Body louse infestation generally affects people it depends on number of demographic, social and economic factors. Lifestyle and the neglect of hygiene, overcrowding like military camps, prisons, patients psychiatric, cheap poorly, civilian population disrupted by war and other disasters [4] are factors which increase the risk of the incidence of epidermal parasitic skin diseases (EPSD) such as pediculosis among people with mental health problems. Louse infestation remains a major problem through the world, it common task in general medical practice in addition it act as a vector causes or transmitting other diseases such diseases as typhus [5 & 6].

Different species of lice prefer to feed on certain locations on the body of the host. Louse species include pediculus capitis (head lice) attaches itself to the hairs of the head, pediculus corporis (body lice) lives on the body and clothes of man.
pubis and pubis lice) is often sexually transmitted. It resembles a miniature crab, and causes intense itching in the pubic area, but it can also infect the eyebrows, eyelashes, and beards [7].

Clothing lice affect predominantly homeless and refugee-camp populations and are less prevalent than head lice but far more serious because they vector at least three deadly bacterial pathogens, those responsible for epidemic typhus (Rickettsia prowazekii), trench fever (Bartonella quintana), and relapsing fever (Borrelia recurrentis) [8]. Their diagnosis is controversial and most studies are based on direct visual exam, but diagnosis with the microchanelled fine toothed combs more efficient than direct visual exam[9].

Transmission is accomplished when the louse is crushed while scratching and enter through the abraded skin [10]. Due to the usual diagnosis of the presence of co-infections among psychiatric patients may not have subject to specific rules. In addition No previous studies have shed light on other important aspects concerning the health psychological patient, despite the possibility that these patients, probable exposed for various pathogens and infections simultaneously with clinical disease, as well as the lack of a specialist professionals to provide health care for them. The current study was done during 2014- 2015 to evaluate the prevalence of phthiriasis infections among psychiatric patients.

**Material and Method:**

Al-Rashad mental hospital receiving psychiatric patients from different governorates of Iraq. A total number one thousand and thirty hundred from different sexes (1013 male and 287 female), their Age between 15-55 years, during the period from September 2014 to April 2015. Patient's distributors at sixteen corridors of the hospital were divided into five age groups as follow:

- Group 1 (G1): 15 – 23 years
- Group 2 (G2): 23 – 31 years
- Group 3 (G3): 31 – 39 years
- Group 4 (G4): 39 – 47 years
- Group 5 (G5): 47 – 55 years

It has been studied each patient by direct visual examination under appropriate light conditions for diagnosis the disease [11]. lice isolated from patients with mild and moderate cases, however severe cases we cannot subjected to examination and determine if they are infected or not. Insects have been diagnosed by Prof. Dr. Mohammed Saleh Abdul Rasul University of Baghdad - Iraq's Natural History Museum, according to the documented and attachment herewith the search [12].

**Result and Discussion:**

An insect have been diagnosed by Prof. Dr. Mohammed Saleh Abdul Rasul University of Baghdad - Iraq's Natural History Museum, as follows: prying lice on humans *Pediculus humanus* (Linn.) Anoplura, Pediculidae. The main symptoms that patients suffered from it were itching, aggressive, emotional symptoms of obsessive- compulsive disorder symptoms. At the same time as psychiatric patients who those were isolated lice, they suffered from other diseases like Thoracic-Abdominal-diseases, urinary tract infection in addition to tuberculosis and skin inflammation.

Studies indicate that pediculosis still a public health problem and an indicator of deficient cultural level [9]. Neglect of hygiene is factors which increase the risk of the incidence epidermal parasitic disease [13]. And help the expansion and transmission
of the disease, so it is becoming increasingly common in developed countries [14]. We would like to note the start not to enable us to get closer to severe pathological cases for examined and search the lice, while allowed us to patients with mild to moderate -level approach them, examined and isolated the lice if present in their hair. We observed simple cleanliness level in all sixteen hospital corridors of. Also there are no bathing facilities in hospital.

Present study found that Psychiatric patients with phthiriasis were isolate them at 175 (13.46%) out of 1300, was higher incidence rate in male (62.86%) than females (37.14%), with significant difference P 0.01 (Table 1).

**Table (1): Number of psychiatric patients infected with *Pediculus humanus* (Linn.) Anoplura, Pediculidae in both sexes during the period of present study**

<table>
<thead>
<tr>
<th>Sex</th>
<th>Examined cases</th>
<th>Infected cases</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>1013</td>
<td>110</td>
<td>62.86</td>
</tr>
<tr>
<td>Female</td>
<td>287</td>
<td>65</td>
<td>37.14</td>
</tr>
<tr>
<td>Total</td>
<td>1300</td>
<td>175</td>
<td>13.46</td>
</tr>
</tbody>
</table>

The results of previous studies in the world did not show the existence of an significant relation between the length of the hair and the incidence of phthiriasis [15] Delusion of parasitosis was the most common psychogenic skin disorder seen among three hundred patients with primary psychiatric condition who had cutaneous disease. On the whole, parasitic infestations were seen in 13% of the study group patients. Of these, scabies was present in 7.67%, pediculosis capitis in 4.33%, pediculosis pubis in 0.67% and pediculosis corporis in 0.33% of the patients [16]. [17] showed a significant statistical increase in the prevalence of skin diseases in general and infectious skin diseases in particular in psychiatric patients compared with non-psychiatric patients (71.5% versus 22%, P < 0.001) and (48% versus 11%, P < 0.001), respectively. Parasitic infestations (42.7%) were the most common infectious skin diseases in (P < 0.001). Infectious skin diseases in psychiatric patients were seen most in patients diagnosed with schizophrenia (83.6%) and least in obsessive compulsive disorders (30%)(P < 0.001). Psychogenic skin disorders were found in 8.4% of psychiatric patients with skin diseases; delusional parasitosis was the most common (50%). Pediculosis capitis in 26 out of 63.4% out 41 Patients with primary psychiatric disorders. However, in other studies, there seem to be a positive relation about this fact 8.19. In female patients, more cases are associated with long hair, which is also favored by inappropriate hygiene sanitation practices. [9] observed that women were more affected than man. Delusion of parasitosis in the study done by [16] showed a female preponderance and was seen with schizophrenia in (3) patients, depression in (2) patients and bipolar disorder in (1) patients. In addition the frequency of lice infestation was significantly higher among patients who shared articles such combs, scarves and towels, hair care items and head ribbons used during treatment, also sleep items, these item play important role for incidence the prevalence of head lice, this is agreement with [17]. In addition, crowded condition is the main factor for transmission of head lice these considered risk factors of pediculosis capitis. The maximum registered rate of nosocomial infections was 5.55 and the minimum 1.53 per 1,000 patients-days. Including the manifestations of hospital pediculosis and scabies, the calculated rates range from 1.83 to 8.83 per 1,000 psychiatric patients-day [18]. Parasitic infestations (42.7%) were the most common infectious skin diseases in psychiatric patients (14). Of 1404 prisoners, 31 (2.2%) were infested with Sarcoptes scabiei and 12 (0.9%) with body louse. There were no cases of head or crab lice. All of the subjects with scabies and 83% of Pediculus corporis infestation had intense
pruritus. There was a significant reverse association between the duration of imprisonment and these diseases. Pediculosis and scabies were more common among new prisoners. Totally 83% of body lice case complained of body itching, and there was no significant difference on age of scabies and pediculosis cases [19]. Manual search technique of direct visual observation of different stage of the parasite, as initial diagnostic search [11]. The average number of isolated lice among male patients was 8 lice / patient and 15 lice / female patient with a significant difference at the level of infection according to gender table and figure (2).

Table (2): Number of *Pediculus humanus* (Linn.) Anoplura, Pediculidae isolated from psychiatrists patients in both sexes during the period of present the study.

<table>
<thead>
<tr>
<th>Sex</th>
<th>Examined cases</th>
<th>Infected cases</th>
<th>%</th>
<th>Mean number of isolated lice</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>1013</td>
<td>110</td>
<td>62.86</td>
<td>8</td>
<td>34.78</td>
</tr>
<tr>
<td>Female</td>
<td>287</td>
<td>65</td>
<td>37.14</td>
<td>15</td>
<td>65.22</td>
</tr>
<tr>
<td>Total</td>
<td>1300</td>
<td>175</td>
<td>13.46</td>
<td>23</td>
<td>100</td>
</tr>
</tbody>
</table>

Conventional diagnostic methods used in different epidemiological and clinical studies for direct vision of the lice and close to the hair of the head. We observed different stages of *pediculosis capitis* with more nits and pedicles nymph than adult stage with high significant differences P (0.01), were the hair was separated with the fingers looking for imago, nymph, alive or dead nits from hair basis tips to remove parasite by dragging, we detected the following stages: only lice (adult stage); only nits; and third group lice plus live in infected cases. In addition the existence large numbers of nits, which began small in size and oval shapes, attached tightly the rules of hair. The direct visual method underestimates active manifestation. The mean time for detection of the first lice on the head of the examined patient was 57 seconds for the metallic comb and 116.4 seconds for direct visual examination, on average (9), so this method more efficient method of great utility for epidemiological studies and already finished infestation daily medical practice, in addition, adult forms and nymphs are photophobic and tend to protected in hair when it is touched.
Conclusion:

Phthiriasis should not be considered as neglected disease among psychiatric patients. Actually, these patients as well as any other citizens may be subject to the occurrence of clinical comorbidities and other infections, so need special health and skin care, in addition to regulate inspection program monthly and periodically which it represent the basis of correctly in the control program and prevention of infectious skin diseases among them.

References:
