The Distribution of the Different Types of Primary Headache and Facial Pain in Geriatrics

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ABSTRACT

Background: Headache is the commonest complaint in medicine. It is divided into primary and secondary according to its association with a cause or not. The incidence of primary headache decreases in elderly. This makes headache in elderly patients more serious problem, as the secondary causes of headache represent higher percentage in elderly than in younger age group. This needs more clinical experience, investigations and efforts.

Objectives: To evaluate the distribution of the different types of the primary headache among elderly patients for both genders**.**

Methods: This is an observational prospective study that enrolled 80 elderly patients above the age of 65 years, whom presented with primary headache in a privet clinic in Baghdad, Iraq, between January and August 2015. The patients have been subjected to clinical assessment as well as laboratory investigations according to the needs of each case. The diagnosis and classification of headache types was based on the International Classification of Headache Disorders, 3rd edition (beta version).

Results: This study reveals clear female predominance that represented 65% of cases with headache. The mean age of patients was 71 years. The distribution of the different types of the primary headache among elderly show that tension headache represented (52.5%) and migraine (25%) and they are the commonest types. Tension headache represented a little higher percentage compared to similar studies in other countries.

Conclusions: This study reveals that most primary headaches in the elderly are tension headache and migraine. In Iraq, especially tension headache is little more than in other country and this is may be contributed to the association of this type of headache with psychological problems, that the general population suffering from due to hard conditions of the country.

Keywords: Headache, Facial pain, Elderly.

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Headache is a universal problem, with a lifetime prevalence of 99%, and it is the most common reason for neurologic referral[1].

In several surveys headache with onset in the elderly age period was found to be a prominent problem in as many as 1 of 6 persons, and more often to have serious import than headache in a younger population[2].

Headache prevalence in the elderly age group ranged from 5 to 50%[3]. Headache is classified into primary and secondary according to the presence of a cause or not.

The International Classification of Headache Disorders, 3rd edition (beta version) is used to classify the headache subtypes[4].

The incidence of secondary headache increase with advancing age, while that of primary headache decreases[5]. Examples of common reasons for secondary headache syndromes in the elderly are intracranial space-occupying lesions, ophthalmological problems and autoimmune diseases such as giant cell arteritis[5].

The primary headache includes many types like tension headache, migraine, many subtypes of trigeminal autonomic cephalgia and others.

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Tension headache is the commonest type of headache in elderly as well as in general population. In elderly patients, tension headache was the most prevalent new headache at 80.6%[6].

Migraine which is the second common cause is accounted only for 4.2% of new-onset disorders[6]. Still migraine represents a valuable percentage of cases but mostly as old cases that start at adult life and continue to the elderly age period. Most elderly patients (85.9%) reported that migraine complaints appeared for the first time before 50 years[7].

The most difficulties in diagnosis occur with newly presented elderly patients especially with common migraine. This is because the typical clinical feature is decrease in elderly patients. Characteristics such as pulsatility, associated photophobia or phonophobia, exacerbation with exercise, and high intensity will diminish over time in previously affected patient and they are less presenting in new cases in elderly patients. On the other hand, autonomic symptoms (flushing, palpitation, sweating) and bilateral pain are more common in elderly patients[8].

Trigeminal autonomic cephalalgias (TACs); characterized by relatively short-lasting attacks of head pain associated with cranial autonomic symptoms, such as lacrimation, conjunctival injection, or nasal congestion[9]. They include cluster headache (affect mainly young adult with male predominance with mean age of 25 years), hemicranias (the mean age of onset being 34 years with female-to-male ratio of 2.3:1.) and SUNCT (short-lasting unilateral neuralgiform headache attacks with conjunctival injection and tearing), in which the majority of patients are males above age 50 but decreases in more age group. TACs are diseases of middle age that rarely affect elderly patients.

Hypnic headache this headache syndrome typically begins a few hours after sleep onset. The headaches last from 15 to 30 min. It is of special interest as it is already a disease of elderly patients. Most patients are females, and the onset is usually after age 60[9].

It shares with cluster headache a nocturnal occurrence. It also may occur with daytime naps. However, it differs in being bilateral and unaccompanied by lacrimation and rhinorrhea[3].

New daily persistent headache is found to be more common in females with a mean age of 35 years. The patient with NDPH presents with headache on most if not all days; the onset is recent and clearly recalled by the patient[9].

Primary stabbing headache (also previously known as idiopathic stabbing headache, ice-pick headache, jabs and jolts, ophthalmodynia periodica) manifests itself in very brief, sharp or jabbing pain in the head (not usually the face), either as a single stab or a series of brief repeated volleys of pain. The pain itself generally lasts a fraction of a second but can last for up to one minute in some sufferers, and may move from one area to another in either the same or opposite side of the head[10]. It is not a disease of elderly as the mean age at onset 34.1 ±2.9 years (range 10-72)[11].

Nummular headache is characterized by a continuous or intermittent head pain that is exclusively felt in an area of the scalp. It was previously known as coin-shaped headache. The affected area should be sharply contoured, fixed in size and shape, round or elliptical and 1–6 cm in diameter. It is considered a form of peripheral neuralgia originating from the terminal branch in epicranial tissue but its etiopathogenesis is still unknown[12].

Primary thunderclap headache; sudden onset severe headache may occur in the absence of any precipitant. It is one of most difficult cases if present as new case because they demined extensive investigations to be clarified, but fortunately both are rare and when come as chronic recurrent attack, they give some assurance but still one should be conservative in diagnosis and prognosis

prediction. The differential diagnosis includes the sentinel bleed of an intracranial aneurysm, cervico-cephalic arterial dissection and cerebral venous thrombosis[10].

Painful cranial neuropathies and other facial pains like trigeminal neuralgia is already a disease of middle and elderly age group. Other types include occipital neuralgia, ciliary, nasociliary, supraorbital, neuralgia[2].

Methods

This is an observational prospective study that enrolled 80 elderly patients with primary headache in a privet clinic in Baghdad, Iraq, between January and December 2015.

Study sampling involves patients over 65 years old of both genders who are complaining of primary headache. Both of old onset headache and recently onset headache presented patient are included in the study.

The International Classification of Headache Disorders, 3rd edition (beta version) is used to classify the headache subtypes, which is given at the end of the study.

We concerned only with primary types i.e. types coded as 1, 2, 3, 4 and 13 as well 14, since other coded types are secondary headache.

Patients interviews and questions are based on the diagnostic criteria of The International Classification of Headache Disorders, 3rd edition (beta version).

Patients have been subjected to laboratory investigations according to the needs. Neuroimaging studies of the brain and/or cervical spine were performed, when necessary. Blood investigations especially ESR and complete blood picture, serum electrolytes, and others according to the needs.

Exclusion criteria includes

1. Patients younger than 65 years' old
2. Patients with secondary headache that proved clinically or by investigations like brain tumour, head trauma, temporal arteritis, hypertensive headache and others.
3. Patients who are poorly communicable like those with cognitive impairment or aphasia because they couldn't give detailed description of their disease.

All the patients were followed up in the clinic for variable period according to the difficulties of the diagnosis and management.

Results

The range for the age of the patients was between 65 to 85 years old. The mean age was 71 years old, with a clear female predominance, as 65 % of our patients were female, (Table 1).

The frequency of different types of headache show that tension headache is the commonest followed by migraine, then the other types of headache, (Table 2).

Table 1: Age and sex distribution of cases.

Age group	Male	Female	Total No. (%)
65-75	16	24	40 (50)
76-85	9	20	29 (36.25)
>85	3	8	11 (13.75)
Total	28 (35%)	52 (65%)	80 (100)

Table 2: Types of headache.

Headache type	Patients number	Patients percent	Male number	Male percent	Female number	Female percent
Tension headache	40	52.5%	16	40%	24	60%
Migraine	20	25%	5	25%	15	75%
Trigeminal neuralgia	4	5%	0	0%	4	100%
Primary stabbing headache	4	5%	2	50%	2	50%
TACs;	4	5%				
Cluster headache	3	3.75%	3	100%	0	
Hemicranias continua	1	1.25%	0	0%	1	100%
Nummular headache	3	3.75%	1	33.3%	2	66.6%
Primary cough headache	2	2.5%	1	50%	1	50%
Primary thunderclap headache	1	1.25%	0	0%	1	100%
New daily persistent headache	1	1.25%	0	0%	1	100%
Hypnic headache	1	1.25%	0	0%	1	100%
Total	80	100%	28		52	

Discussion

The result point that females are representing clearly higher percentage as 65% of the sample and this agree with most of other studies as example in M. Ruiz study in Spain who points to even much higher percentage as 72% are females[13].

The median age was 71 years old in this study which is comparable to M. Ruiz study, in which the median age was 72 years with a range, 65-94 years[13]. While mean age in Italy was much higher as it reached to 81 years in the study of Manuel Soldato and Evangelista[14]. This difference between the means of ages for the patients could reflect the different average of ages and life span in these countries.

The commonest type of primary headache in geriatrics was tension headache represent 52% in our study. This is agreeing with most other studies about geriatrics headache. As example, Sharon Tia study in Malaysia also points that tension headache is the commonest type and show that it represents 45.8% of total cases[15]. This is agreeing also with M Prencipe, et al study who show that tension headache represents 44% of total cases[16]. Although both of the present study and Sharon Tia's study in Malaysia pointed that tension headache is the commonest type but the percent in the present study is higher than studies of Sharon Tia in Malaysia[15] and of M Prencipe[16]. This difference could be logical if we take in consideration that stressful trigger factors play the major role for this type of headache and the stressful condition in Iraq is high. Patients with depression or anxiety frequently complain from this type of headache.

Regard migraine the study point that it is the second causes and represent 25% and this is comparable to study of Sharon Tia which gives 23.6%[15]. Yet both of our study and of Sharon Tia[15] differ from that of M Prencipe who gives migraine only 11% of total cases[16]. Also, in study by Tae-Jin Songa in Seoul, Korea, she points that migraine represent 13.4% of total cases[17]. The gender distribution for migraine in our study show female high predominance 75% female (15 of 20 patients) which agree with migraine in general population but differ from that of Tae-Jin Songa, who point that migraine did

not differ with sex in the elderly patients (p=0.996)[16] .

Trigeminal autonomic cephalalgias that were detected in our sample include only cluster headache and hemicrania. Both are disease of middle age and rare in elderly and both represent collectively 5% of the sample. While the study bof Tae-Jin Songa, point to 0% case in her sample[17].

Primary stabbing headache represents 5% of our cases, although it is a common headache but we concerned only with primary cases, while mostly it is secondary headache or associated with another primary; migraine, tension headache and hemicrania. Yet even primary cases could be of much higher figure as shown by Tae-Jin Songa, who point to 31% of total cases which is even more than migraine which represent only 13.4%[17].

Primary thunderclap headache diagnosed in our sample represent (1.25% of our patients) and primary cough headache also we have only single case (1.25% of our patients) while in study by Tae-Jin Songa, both types of headache were 0% in her sample[17].

Nummular headache represents 3.75% of cases. All are old cases of long history. In a study of Pareja JA who points that it is a non-infrequent primary headache and he point that based in their hospital series, the incidence was 6.4/100,000/year[18] .

New daily persistent headache represent (1.25%) while in study by Tae-Jin Songa in, who point to 2.3% of total cases (3 of 126 patients)[18].

Hypnic headache; this represents (1.25%) of our sample which is comparable to Liang JF who points that the overall proportion of patients with hypnic headache ranged from 0.07 to 0.35%, while the proportion among geriatric patients with headache ranged from 1.4 to 1.7%[19]. There is a female predominance of approximately 2:1as pointed by Newman LC[20].

Regard facial pain; trigeminal neuralgia represents 5% of cases in present study. Sharon Tia gives little higher as 7.1%[15].

Other types of headache and facial pain cannot be detected by this study due to our small sample. It is well known that these rare types of headache don't change the total figure of the studies.

In conclusions; In Iraq, primary headache distribution in elderly patients is similar to other countries as the commonest being tension headache and migraine followed by other types. In spite of this similarity, tension headache is noted to be reported with higher frequency than in other country and this may be contributed to the association of this type of headache with psychological problems that the general population suffering from due to hard conditions of the country. More extensive samples are needed to figure more accurate map of headache type's distribution.

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