Women and headache

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النساء و الصداع

رسالة

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Summary

There are many causes of headache that affect women in different life stages these causes include migraine, cluster headache, tension headache, cerebral sinus thrombosis, CNS vasculitis, pseudotumor cerebri, meningioma and choriocarcinoma.

Migraine occurs more commonly in women than men. Hormonal fluctuations during menstruation, pregnancy, postpartum, and menopause are the key factor in the increased prevalence of migraine in women. The principal diagnostic features of migraine are throbbing pain, unilateral pain, duration from 4 to 72hours, nausea, photophobia, phonophobia and exacerbation by routine physical activity. Migraine treatment begins with making a diagnosis, explaining it to the patient, and developing a treatment plan that considers co-existent conditions. Pharmacotherapy may be acute or preventive, and patients may require both approaches. Acute treatment can be specific (ergots and triptans), or nonspecific (analgesics and opioids). Nonspecific medications control the pain of migraine or other pain disorders, while specific medications are effective in migraine and certain other headache attacks but are not useful for non-headache pain disorders.

Cluster headache seems to be increasing in women, which may be secondary to women taking on the occupations and vices of men. The disorder in women is not exactly the same as in men. It seems to start earlier in life in women. Menstruation, use of oral contraceptives, pregnancy, and menopause had a limited influence on attacks of cluster headache. The aim of treatment of cluster headache is prevention of attacks. During clusters, alcohol is prohibited ergotamine can be given and if ergot is unsuccessful sumatriptan, or methysergide or verapamil are useful alternatives. Also Oxygen at the onset is often effective.

Introduction

Headache is one of the most important medical issues in women's health, as it is more common in women than in men. The greatest gender disparity occurs between age 30 and 45 years. It is influenced by hormonal levels that change throughout a woman's life, and it has great clinical, quality-of-life, and economic impact. Primary care physicians have the unique opportunity to treat women throughout the chronologic and hormonal stages of their lives. By understanding the life-stage needs and the disorders that may coexist with headache, physicians can provide comprehensive pharmacologic and nonpharmacologic interventions possible physiologic reasons why women have a higher prevalence of headache include neural differences in the brain, differences in sex hormones, alterations in prostaglandin, prolactin, and opioid levels, and pharmacokinetic and pharmacodynamic differences. Possible psychosocial factors include different coping strategies and learned behaviors.[1]

The commonest causes of troublesome headache in young women are migraine and tension headache [2]. Migraine headaches predominantly affect women and show a peak in prevalence in the third and fourth decades of life [3]. It is more common in women than men, its prevalence is 12% of the general population, affecting 18% to 20% of women [4].Women of reproductive age, pregnancy and the puerperium are associated with an increased likelihood of developing a first migraine or showing changes in the character, frequency, or severity of such headaches [3]. Tension-type headaches, in contrast tend to show less change during pregnancy, with improvement in approximately 25% of women [5]. The prevalence of tension-type headache vary over a wide range from1.3% to 65%in men and 2.7% to 86% in women.[6]

In contrast with migraine, which seems to be influenced by hormonal fluctuations in many women cluster headache (CH) is a severe primary headache disorder accompanied with autonomic symptoms. It has long been regarded as a ‘‘male dominant’’ disease, but male preponderance seems to

decrease in recent years little is known about the influence of hormonal factors like menstruation, use of oral contraceptives, pregnancy, and menopause.[7]

It pays to remember that other important causes of headache have a slightly increased incidence in pregnancy particularly benign intracranial hypertension, tumors, CNS vasculitis and cerebral venous thrombosis.[2]

Cerebral venous thrombosis (CVT) is an uncommon cerebrovascular disease. In all series, headache is the most frequently occurring symptom at any time, present in over 80% of cases, and it is also the commonest initial symptom [8]. All age groups can be affected a small preponderance in young women because of pregnancy, puerperium, and the use of oral contraceptives (OCPs).[9]

Headache is a common initial symptom of CNS vasculitis [10]. BACNS occurs four to five times more frequently in women than in men, with a mean age of onset of 40 years. BACNS has been reported with pregnancy-related syndromes and with the use of a variety of vasoactive drugs such as ergots and bromocriptine.[11]

Idiopathic intracranial hypertension (IIH), also known as pseudotumor cerebri, is a condition of increased intracranial pressure of unknown cause that occurs with a frequency of 19.3 per 100,000 in obese women of childbearing age the most common symptoms are headache and visual disturbances including transient visual obscurations and diplopia.[12]

The occurrence of brain tumors during pregnancy is uncommon. Many studies suggest that female hormones play a role in the etiology and growth of meningioma. Pregnant woman with presenting symptoms of repeated vomiting, nausea, and headache may not always be related to gestational changes or toxemia of pregnancy so patients should be examined carefully.[13]

Aim of the work

To highlight causes of different types of headache that are more prevalent in females hence earlier diagnosis and better management.

Contents

المقدمة

الصداع هو واحد من من القضايا الطبية الهامة في صحة المرأة، كما هو أكثر شيوعا في النساء من الرجال. التفاوت بين الجنسين يحدث بين سن 30 و 45 عاما.و هو يتأثر بمستوى الهرمونات طوال حياة المرأة وله تأثير على نوعية الحياة و أيضا تأثير اقتصادي. أطباء الرعاية الصحية الأولية لديها فرصة فريدة لعلاج النساء في المراحل الهرمونية المتزامنة في حياتهم .من خلال فهم احتياجات كل مرحلة من الحياة والاضطرابات التي قد تتعايش مع الصداع ، ويمكن للأطباء تقديم تدخلات دوائية و غير دوائية و أيضا أسباب فسيولوجية محتملة لماذا المرأة لديها أعلى معدل انتشار وتشمل الاختلافات العصبية في الدماغ، والاختلافات في الهرمونات الجنسية، والتغير في مستوى البروستاجلاندين ، البرولاكتين، ومستويات المواد الأفيونية، والاختلافات الدوائية. العوامل النفسية والاجتماعية المحتملة تشمل مختلف استراتيجيات التصدي والسلوكيات المستفادة.

من الأسباب الأكثر شيوعا للصداع بين الشابات الصداع النصفي و الصداع الناتج عن التوتر. الصداع النصفي يؤثر على معظم النساء ، وتظهر ذروة الانتشار في العقدين الثالث والرابع من العمر. وهو أكثر شيوعا في النساء من الرجال، وانتشاره هو 12٪ من سكان العام، مما يؤثر على 18٪ إلى 20 ٪ من النساء.و قد يحدث للنساء في سن الإنجاب، والحمل والنفاس الصداع النصفي لأول مرة أو قد تحدث تغيرات في وتيرة، وطابع ، أو شدة الصداع. وفي المقابل يميل الصداع الناتج عن التوتر إلى إظهار تغيير أقل خلال فترة الحمل، مع تحسن في حوالي 25٪ من النساء. انتشار الصداع الناتج عن التوتر يختلف على نطاق واسع من 1.3٪ إلى 65٪ عند الرجال ومن 2.7٪ إلى 86٪ لدى النساء.

وعلى النقيض من الصداع النصفي، والتي يبدو أنه يتأثر بالعديد من التقلبات الهرمونية الصداع العنقودي في النساء و هو اضطراب ابتدائي شديد يترافق مع أعراض خاصة بالجهاز العصبي اللاإرادي منذ فترة طويلة ويعتبر هذا المرض أكثر انتشارا بين الرجال و لكن هذا الانتشار بدأ يقل في السنوات الأخيرة و لا يعرف إلا القليل عن تأثير العوامل الهرمونية مثل الحيض، واستخدام وسائل منع الحمل عن طريق الفم، والحمل، وانقطاع الطمث.

و من الضروري أن نتذكر أن الأسباب الهامة الأخرى للصداع قد زادت نسبتها قليلا أثناء الحمل و خاصة وارتفاع ضغط الدم داخل الجمجمة الحميد و الأورام والتهاب الأوعية الدموية بالجهاز العصبي المركزي و أيضا التخثر الوريدي الدماغي.

التخثر الوريدي الدماغي هو مرض غير شائع. والصداع هو أكثر الأعراض كثيرا ما تحدث في أي وقت،و هو موجود في أكثر من 80 ٪ من الحالات ، وأنه هو أيضا أشيع الأعراض الأولية و يمكن أن تتأثر جميع الفئات العمرية الصغيرة و خاصة الشابات بسبب النفاس، والحمل، واستخدام وسائل منع الحمل عن طريق الفم.

يعتبر الصداع عرض أولي و شائع من أعراض التهاب الأوعية الدموية بالجهاز العصبي المركزي. التهاب الأوعية الدموية الحميد هو من 4-5 مرات أكثر شيوعا في النساء من الرجال، في متوسط العمر من 40 سنة.و قد يحدث التهاب الأوعية الدموية الحميد مع المتلازمات المرتبطة بالحمل ومع استخدام مجموعة متنوعة من الأدوية المؤثرة على الأوعية مثل الارجوت و بروموكريبتين.

ارتفاع ضغط الدم داخل الجمجمة مجهول السبب و المعروف أيضا باسم ورم المخ الكاذب يحدث بمعدل 19.3 لكل 100,000 من النساء البدينات في سن الإنجاب و يعتبر الصداع من أعراضه الأكثر شيوعا بالإضافة إلى واضطرابات بصرية عابرة مثل ازدواج الرؤية.

حدوث أورام المخ أثناء الحمل غير شائع. العديد من الدراسات تشير إلى أن الهرمونات الأنثوية تلعب دورا في حدوثها مثل الورم السحائي .و يجب أن يؤخذ في الاعتبار أن أعراض القيء المتكرر والغثيان والصداع التي تحدث مع المرأة الحامل ليس بالضرورة أن تكون مرتبطة بالحمل أو تسمم الدم من الحمل لذلك يجب فحص المرضى بعناية.

Introduction

Headache is one of the most important medical issues in women's health, as it is more common in women than in men. The greatest gender disparity occurs between age 30 and 45 years. It is influenced by hormonal levels that change throughout a woman's life, and it has great clinical, quality-of-life, and economic impact. Primary care physicians have the unique opportunity to treat women throughout the chronologic and hormonal stages of their lives. By understanding the life-stage needs and the disorders that may coexist with headache, physicians can provide comprehensive pharmacologic and nonpharmacologic interventions. Possible physiologic reasons why women have a higher prevalence of headache include neural differences in the brain, differences in sex hormones, alterations in prostaglandin, prolactin, and opioid levels, and pharmacokinetic and pharmacodynamic differences. Possible psychosocial factors include different coping strategies and learned behaviors [*Lisa K, et.al, 2002*].

The commonest causes of troublesome headache in young women are migraine and tension headache [*Guy V.S, Margaret M. R, 1998*]. Migraine headache predominantly affect women and show a peak in prevalence in the third and fourth decades of life [*Stephen A. C, et.al, 2009*]. It is more common in women than men, its prevalence is 12% of the general population, affecting 18% to 20% of women [*Patrícia T.F, et al., 2008*].Women of reproductive age, pregnancy and the puerperium are associated with an increased likelihood of developing a first migraine or showing changes in the character, frequency, or severity of such headache [*Stephen A. C, et al., 2009*]. Lifetime prevalence of tension-type headache is 88% in women and 69% in men [*Smetana G.W, 2000*] and it's the most common neurologic complaints during pregnancy [*Lisa K.M, et al., 2002*].

In contrast with migraine, which seems to be influenced by hormonal fluctuations in many women cluster headache (CH) is a severe primary headache disorder accompanied with autonomic symptoms. It has long been regarded as a ‘‘male dominant’’ disease, but male preponderance seems to decrease in recent years little is known about the influence of hormonal factors like menstruation, use of oral contraceptives, pregnancy, and menopause [*Vliet V.A, et al., 2006*].

It pays to remember that other important causes of headache have a slightly increased incidence particularly benign intracranial hypertension, tumors, CNS vasculitis and cerebral venous thrombosis [*Guy V.S, Margaret M. R, 1998*].

Cerebral venous thrombosis (CVT) is a cerebrovascular disease in which headache is the most frequently occurring symptom at any time, present in over 80% of cases, and it is also the commonest initial symptom [*Cumurciuc R, et al., 2005*]. All age groups can be affected a small preponderance in young women because of pregnancy, puerperium, and the use of oral contraceptives (OCPs) [*Hossein A, Nahid A, 2008*].

Headache is a common initial symptom of CNS vasculitis [*Roger E. K, 2004*]. Benign angiopathy of CNS (BACNS) occurs four to five times more frequently in women than in men, with a mean age of onset of 40 years. BACNS has been reported with pregnancy-related syndromes and with the use of a variety of vasoactive drugs such as ergots and bromocriptine [*Sila C.A, 2008*].

Idiopathic intracranial hypertension (IIH), also known as pseudotumor cerebri, is a condition of increased intracranial pressure of unknown cause that occurs with a frequency of 19.3 per 100,000 in obese women of childbearing age the most common symptoms are headache and visual disturbances including transient visual obscurations and diplopia [*Huna-Baron R, Kupersmith M.J, 2002*].

Many studies suggest that female hormones play a role in the etiology and growth of brain tumors. Pregnant woman with presenting symptoms of repeated vomiting, nausea, and headache may not always be related to gestational changes or toxemia of pregnancy so patients should be examined carefully [*Ibrahim A, Abdul Rahman A.A, 2004*].

Aim of the work

To highlight causes of different types of headache that are more prevalent in females hence earlier diagnosis and better management.

Migraine

Migraine is a chronic common disease that presents with mild to sever recurrent headache accompanied by autonomic and neurologic symptoms [*Masoud S.A, Fakharian E, 2005*].

Migraine headache predominantly affects women and shows a peak in prevalence in the third and fourth decades of life. Women of reproductive age, pregnancy and the puerperium are associated with an increased likelihood of developing a first migraine or showing changes in the character, frequency, or severity of such headache [*Stephen A.C, et al., 2009*].

Its prevalence is 12% of the general population, affecting 18% to 20% of women. It has several trigger factors and many patho-physiological mechanisms involved. It usually begins in childhood or adolescence and can remain with the patient for the whole life [*Patricia T.F, et al., 2008*].

Several reproductive milestones correlate with a change in migraine frequency. Prepubertal girls and boys have an approximately equal 4% prevalence of migraine. At puberty the lifetime prevalence of migraine increases to 18% for women and 6% for men, suggesting a hormonal link between female sex and migraine [*Brandes J.L, 2006*].

Pathogenesis of migraine

The brain's susceptibility to migraine attacks is associated with the excitability of the neuronal cell membranes of the occipital cortex. Cortical spreading depression is the most widely accepted mechanism for the development of aura. In cases of headache following aura cortical spreading depression is hypothesized to lead to activation of the trigeminal nucleus caudalis part of the central pathway of migraine pain generation [*Stephen A.C, et al., 2009*].

Classification of migraine according to International Classification of headache disorders (ICHD) 2nd edition

1. Migraine without aura

2. Migraine with aura

1. Typial aura with migraine headache.
2. Typical aura with non migraine headache.
3. Typical aura without headache.
4. Familial hemiplegic migraine (FHM).
5. Sporadic hemiplegic migraine.
6. Basilar-type migraine.

3. Childhood periodic syndroms that are commonly precursors of migraine

1. Cyclical vomiting.
2. Abdominal migraine.
3. Benign paroxysmal vertigo of childhood.

4. Retinal migraine

5. Complications of migraine

1. Chronic migraine.
2. Status migrainosus.
3. Persistent aura without infarction.
4. Migrainous infarction.
5. Migraine triggered seizure.

6. Probable migraine

1. Probable migraine without aura.
2. Probable migraine with aura.
3. Probable chronic migraine.

[Headache classification subcommittee, 2004]