世界全科医学工作研究

澳大利亚 John Murtagh 全科病案研究（四十八）
——一位骨关节病和最近发生高血压病人的费解症状

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【关键词】药物相互作用；药物配伍禁忌；共病现象

【中国分类号】R 96.2【文献标识码】B doi: 10.3969/j.issn.1007-9572.2013.07.003


摘要 患者是一例 60 岁的护士，患有背部和颈部骨关节病 12 年，最近开始用非甾体抗炎药（NSAI）治疗。她有高血压病史，包括用药不当。最近她出现头痛和血压升高。治疗方案中包括降压药物、抗炎药和镇痛药。药物相互作用可能是一个问题，需进一步评估。

1 病史患者是一位 60 岁的护士，患有背部和颈部骨关节病 12 年，最近开始用非甾体抗炎药（NSAI）治疗。她有高血压病史，包括用药不当。大约 3 年前，她出现轻度高血压（145/90 mm Hg）（1 mm Hg = 0.133 kPa），采用的是保守的治疗方式管理。血压一直没有缓解。患者使用了两种药物，改用选择性环氧酶 2（COX-2）抑制剂美洛昔康治疗后病情有所缓解，但未得到有效控制。

2 讨论

2.1 问题 1：非甾体抗炎药的主要不良反应和药物相互作用

2.2 问题 2：β-受体阻滞剂作为高血压一线治疗药物，最近的进展是什么？

2.3 问题 3：你对她的高血压管理的下一步措施是什么？

解答

3.1 解答 1：非甾体抗炎药（包括阿司匹林）有很多严重的不良作用，包括胃肠道反应（如溃疡和出血）、过敏反应（如皮疹）、肝功能异常等，会增加血液黏稠度、血压升高。

3.2 解答 2：对有肾脏疾病的病人来说，应慎重使用 β-受体阻滞剂。这类药物不能减少血压，可能导致心肌梗死，对有慢性病的病人来说，该药是无效的。

3.3 解答 3：比较适合的高血压一线用药是血管紧张素转换酶抑制剂（ACEI）。

4 进一步的病史

患者使用了 β-受体阻滞剂，改用血管紧张素转化酶抑制剂维拉帕米（verapamil）后，血压降至正常。
Case Studies of John Murtagh (48)

An Unusual Case of Vague Symptoms in A Patient with Osteoarthritis and Recent Onset Hypertension

John Murtagh

[Key words] Drug interactions; Drug incompatibility; Comorbidity

1 History

Li Heig is a 60 year old nurse with a 12 year history of osteoarthritis of the hands and knees treated with paracetamol initially and subsequently with the non-steroidal anti-inflammatory agent (NSAID) – diclofenac. She has a strong family history of cardiovascular disease including stroke, coronary artery disease and cardiac failure. About 3 years ago she developed mild hypertension (145/90 mm Hg) for which she was managed with conservative lifestyle measures. The hypertension persisted. Volunteered was ceased and the selective COX-2 inhibitor – meloxicam (Mobic) instituted to continue treating the pain of her persistent osteoarthritis. It provided satisfactory relief.

However in the past two years she had progressed to significant moderate hypertension (170/100 mm Hg) and was commenced on beta blockers. She had a relatively poor response to beta blockers and in addition developed bronchial asthma which she last experienced as a child and teenager.

2 Questions

2.1 What are the significant adverse effects and interactions of these NSAIDs?

2.2 What is the current status of beta blockers as a first line treatment for hypertension?

2.3 What would be your next step in the management of her hypertension?

3 Answers

3.1 NSAIDs including aspirin have many important adverse effects including gastrointestinal e.g. ulceration and bleeding, hypersensitivity including rash, liver and kidney dysfunction, fluid retention and elevation of blood pressure.

3.2 Beta blockers which should be used with caution in anyone with a history of asthma are not regarded as first line agents for hypertension but useful where angina is present.

3.3 An appropriate first line agent is an angiotensin converting enzyme inhibitor (ACEI).

4 Further history

The beta blocker was discontinued and Li was commenced on the ACE inhibitor agent – perindopril. The dose was increased to 10 mg per day but she developed a distressing cough and the angiotensin II receptor antagonist (ARB) – irbesartan was substituted. She tolerated this agent well to the maximum dose of 300mg a day but the BP remained unsatisfactory at 160/95 mm Hg. A decision was
made to add hydrochlorothiazide to the irbesartan so the combined tablet 300 mg/12.5 mg was introduced. Jackpot! The BP settled to 130/80 mm Hg so she continued taking the combined ARB + diuretic agent and meloxicam.

5 Subsequent history

About 3 months after satisfactory hypertensive control Li presented with what she describes as malaise and deteriorating health. She felt tired and weak, anorexic and nauseated, depressed with lack of concentration and difficulty sleeping, discomfort in the flanks and shortness of breath on minimal exertion. She described reduced output of urine.

Examination revealed a sluggish, sick looking woman. There was evidence of reduced cognition (intellectual clouding). Vital signs were pulse 90/min, BP 140/90 mm Hg, respiration rate 16/min, temp 37.5 °C. There were fine cracks on the lungs bases and mild pitting oedema of the ankles. Uralysis was positive for albumen.

6 Further questions
6.1 What is your provisional diagnosis?
6.2 What are first line investigations?
6.3 What is the cause of the problem?

7 Answers of further questions
7.1 The patient has evidence of kidney failure and cardiac failure. The typical clinical features of acute kidney failure (AKF) namely malaise, anorexia and nausea, altered sensorium, oliguria and pale skin were present.
7.2 Investigations should include serum electrolytes, urea and creatinine, eGFR, full blood exam, urine microscopy and culture. A rise in urea and creatinine, albuminuria, and elevated serum potassium and phosphate support the diagnosis. A reduced eGFR supports the diagnosis but is not as reliable in AKF as it is in chronic CKF.
7.3 The key issue here is the triple drug exhibition of an ARB, thiazide diuretic and a NSAID. This combination can be nephrotoxic and precipitate pre-renal kidney failure and is known as the ‘triple whammy effect’. Aspirin also causes the triple whammy syndrome so careful surveillance of drugs is mandatory.

Note: a potentially lethal drug combination is that of allopurinol with azathioprine or 6-mercaptopurine.

（收稿日期：2013-06-05）（本文编辑：同笑敏）