

Mexican Drug Therapy: a Case of Mistaken Identity

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INTRODUCTION

Alternative therapies have become more popular with patients dealing with a variety of chronic conditions ranging from hypertension to cancer. These people turn to alternative therapy for a cure, to reduce the number of side effects of treatment, or simply to explore their healing options. Furthermore, they may take an alternative therapy without informing their primary care providers (such as physicians, pharmacists, and nurses). This lack of communication may ultimately compromise the management of the patient's disease. The following case report illustrates the risk associated with using what was perceived to be a safe, alternative treatment regimen for asthma without informing the primary care provider.

CASE REPORT

A 73-year-old woman was transferred from a rural hospital to a tertiary care centre on September 19, 1997, for investigation of increasing chest pain. She had been admitted to her local hospital 3 weeks before because of increasing chest pain, ventricular tachycardia with loss of consciousness, and a temperature of 38.5°C. Her medical history included hypertrophic cardiomyopathy, insertion of a pacemaker in 1995, and Addison's disease. Medications upon transfer included acebutolol 200 mg PO bid, verapamil 240 mg SR daily, isosorbide dinitrate 10 mg tid, ceftriaxone 1 g IV q24h, gentamicin 60 mg IV q8h, conjugated estrogen 0.625 mg daily, and cortisone 25 mg qam and 12.5 mg qpm.

The endocrinology service was consulted for the management of the patient's Addison's disease. The endocrinologist contacted the pharmacist (D.L.) for help in identifying 2 additional medications that the patient had been taking up until 2 weeks before her admission to the rural hospital.

The patient explained to the pharmacist that she had visited a Mexican clinic approximately 9 months earlier for investigation of her shortness of breath. The Mexican physician performed chest radiography and diagnosed asthma. He recommended that she buy 2 medications from his clinic. The first medication was a white, unmarked, unscored tablet called Ambophyllin 400 mg, which was to be taken twice daily. The other tablet was a red, unmarked, unscored tablet called Dolaramine 6 mg, which was to be taken once daily. The patient had asked the Mexican physician whether the medications contained any steroids and if there were any side effects. She was assured that neither medication contained any steroid component and that both were very safe, with few or no side effects. The patient obtained a year's supply of each drug and was compliant with the medication regimen.

Five months later, the patient had visited her family physician, who had noted that her appearance was flushed and that there was evidence of peripheral edema. At that time, serum cortisol level was essentially unmeasurable, and plasma corticotropin was less than 0.3 pmol/L (normal range 2.0 to 13.0 pmol/L). A corticotropin stimulation test resulted in a serum cortisol level of 1027 nmol/L (normal post-corticotropin level of serum cortisol is at least 500 nmol/L). The family physician, unaware of the Mexican medications, had concluded that the patient had a responsive adrenal cortex but likely an isolated deficiency of either the corticotropin-releasing hormone or corticotropin itself. As a result, she had been started on cortisone for the presumed diagnosis of Addison's disease.

Because the medications obtained in Mexico had no markings or labelling, the pharmacist contacted the BC Drug and Poison Information Centre, which provided an article about a similar situation.¹ The

authors described a Mexican clinic where patients were diagnosed with asthma and promised relief from symptoms and, in some cases, cure of their disease. Usual therapy consisted of 2 medications that are not available in the United States or Canada, which together cost approximately US\$300 for a 1-year supply. Clinic physicians deny the presence of steroids in the drugs. Using chemical analysis, the authors discovered that the white tablet called Ambophyllin contained 3 mg of the glucocorticoid triamcinolone¹ and the red tablet called Dolaramine contained chlorpheniramine.¹ Some of the tablets also contained benzodiazepines.

In the case reported here, the pharmacist obtained more detailed information about the patient's visit to Mexico and discovered that she had visited the clinic described by Rubin and colleagues.¹ Because many of the patient's friends were taking the same medications, she had left the Mexican clinic believing that the medications were safe, like herbs, and were not equivalent to prescription drugs.

After realizing that the patient had been taking triamcinolone, the endocrinologist determined that her adrenal suppression had been secondary to exogenous glucocorticoid and not Addison's disease. As a result, she was weaned off the cortisone during her stay in hospital. Because it was anticipated that the hypothalamic-pituitary-adrenal axis might take from days to months to recover, the discharge plan was to monitor her by means of the rapid adrenocorticotropic hormone test until normal function returned.

DISCUSSION

Many patients want to choose from a variety of healing options besides conventional medicine for the

treatment of chronic conditions. It is important that pharmacists obtain a detailed medication history, including herbal medications, nutritional supplements, and any medications obtained outside of a pharmacy or from someone besides the primary care physician. Having done so, the pharmacist becomes a source of comprehensive information on the patient's pharmacotherapy for both the patient and his or her physicians. The pharmacist should also encourage patients to communicate information about all of their medications (prescribed or purchased over the counter) and nutritional supplements to all of their health care practitioners and should explain the potential consequences of any practitioner not having full information.

Reference

1. Rubin BK, LeGatt DF, Audette RJ. The Mexican asthma cure — systemic steroids for gullible gringos. *Chest* 1990;97:959-61.

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