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Case Study

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WHAT IS THIS COUGH? - THE BURDEN OF UNRECOGNISED SIDE EFFECT OF MEDICATION USE

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ABSTRACT

Cough is a natural action of the body aimed at clearing the airway of any foreign irritants in the airway, which could be infective or otherwise. This natural response is often intermittent and is usually not sustained. Even cough from infective source, the response to an active and potent medication is often evident and rewarding. The question thus is; what happens when the cough is due to a medication which is been taken to treat another condition and this adverse reaction was not recognized? Such patient is therefore subjected to a barrage of needless investigations that often revealed nothing, the burden of several expensive medication to treat the cough, yet the cough persisted, as the offending medication was still been regularly taken as prescribed. We hereby report one such case, the eventual recognition of the causative problem and response to proper management.

CASE HISTORY

Madam AB, was a 53year old grandmother who presented to our facility with a history of a chronic cough that had persisted for over eight months. The cough was said to have started with a sensation of something in her throat with the urge and desire only to clear her throat. There was no pain associated with this feeling and no fever or loss of taste. This eventually progressed to episodic coughing, which was initially short lived, with long interval in-between episodes and not productive of sputum. But, overtime, the cough became more severe, more frequent, spontaneous and irritating, yet was not productive of sputum. Apart from some abdominal pains felt on while coughing, there was no associated symptoms of fever, chest pain, night sweats, weight loss, change in appetite or bowel habits. She denies being an asthmatic patient, nor ever having had pneumonia or episodes of respiratory difficulty in the past. More importantly, there was no history of exposure to any person with prolonged cough and no known allergies. She had helped herself with many over the counter cough syrups and even antibiotics to no avail.

Four months prior to presentation, as a result of the embarrassing condition which had limited her social life to the barest minimum, and with close contacts actively avoiding her and often looked at her suspiciously, she sought "cure" from several medical outfits. She reported that the first doctor that she consulted asked her several questions, and then examined her thoroughly but reported that there were nothing abnormal found in her system, that she was essentially normal. This was despite the episodic coughing. But, upon her request for tests, Chest Xray, sputum AFB, Mantoux test, HIV screening and full blood count and differential were done. All results were said to have no abnormality seen. Madam AB did not accept these findings, more so that the cough persisted and requested that treatment be given. Series of antibiotics both oral and intravenous types were said to have been prescribed for her, which she judiciously took.

As a result of the non-resolution of the cough, she visited two more private health facilities where she repeated similar investigations done before. She claimed she deliberately did not inform the different doctors that she had done them. Her aim was, "not to mislead them." As expected, nothing was found and the oral antibiotics, multiple cough syrups and injection hydrocortisone were given. Notwithstanding, the cough persisted, with no relief whatsoever. Still no fever, no sputum production and no chest pain reported. She was then advised have a chest CT scan and MRI so as to check her more properly. It was at this point that she presented to us where these investigations are available.

She was accompanied to the hospital by a grown-up son carrying a bag filled with empty and half emptied packets of different kinds of medications. It was obvious that she had gone through a lot in her quest to get treated. A detailed, in- depth holistic history according to the family medicine practice was taken and discovered that madam AB. was an hypertensive patient and was on some anti-hypertensive medications whose packets were not included in the bag that she had come with to the hospital. She was advised to bring the packets of her anti- hypertensive medicines to the clinic by the

following day and she did as advised. Behold, she was on a daily dosage of COVERAM Plus® (10mg /2.5mg/10mg). This is an anti-hypertensive medication that is a combination of Perindopril arginine, Indapamide and Amlodipine. This medication completely explained the origin and cause of her prolonged cough.

She readily accepted that the onset of the cough was about the time that she started taking the medicine. The problem and the probable cause of the chronic cough being one of the constituent of her anti-hypertensive medication was explained to her. It was further explained to her that the best treatment of the chronic cough was to stop the offending medication and switch to another group of anti-hypertensive medication. Madam AB complied with the piece of advice, stopped taking all antibiotics and cough syrups. She discontinued the coveram plus® and was switched over to an Angiotensin Receptor Blocker (ARB) and her blood pressure monitored over time. The protracted cough subsided over time and she became cough free and still was able to maintain a normal blood pressure control. She particularly appreciated the fact that she did not have to do the recommended CT scan and MRI and that we did not do any tests at all but achieved a good result only based on proper history taking.

DISCUSSION

Coveram Plus® is a combination of three different classes of anti- hypertension which working in synergy is able to control the blood pressure to a desired normal level. The drug perindopril is a member of an anti-hypertensive drug known as Angiotensin Converting Enzymes inhibitors (ACE inhibitors). The group known as ACE act by depressing the manufacturing of angiotensin II which is a strong vasoconstrictor thereby causing dilatation or widening of the blood vessels of the body and making it easier for the heart to pump blood outward into circulation. It is also known that ACE can stimulate other vasodilators in the body like the bradykinnines, both actions resulting in the relaxation of the walls of the blood vessels and decreasing peripheral resistance.[1] Other ACE inhibitors include Captopril, Lisinopril, Enalapril, Ramipril, Benazepril among several others and perindopril.[1] This class of anti-hypertension may have cough as an unwanted side effect as well as headache, fatigue, and dizziness if the blood pressure drops to low level.[2 – 5]

The cough has been described as a dry, irritating, hacking cough,[P6[and may be present even in ACE combination drugs,[7] such as Coveram Plus®. The cough is characterized by its persistence and its cessation on discontinuing the treatment.[8,9] The conventional treatment of this dry and embarrassing cough is to stop the ingestion of the offending medicine and to replace it with other medication from other class or group of anti-hypertensive. The cough may take up to four weeks after stopping the offending drug to stop completely but may occasionally last up to three months.[10,11] Madam AB was advised to stop Covaram Plus® and she complied and was then placed on Telmisartan which is an angiotensin receptor blocker (ARB) that acts by selectively blocking the binding of angiotensin II to the receptor. ARB have similar properties to ACE but do not cause cough.

CONCLUSION

This case report highlights the benefit of a holistic patient evaluation - The ability to do an in-depth holistic history taking here resolved the problem and helped the physician to avoid further costly investigations as had been recommended. This also helped to prevent further exposures to radiation. A high sense of suspicious is the key and important.

Declaration

We declare that there was no competing interest in this study and the study enjoyed no sponsorship from any organization or body.

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