Nitazoxanide use in Rota Viral Diarrhea. Cure or Controversy?

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Sir

There are numerous unapproved drug formulations available for acute watery diarrhea which promises quick relief of symptoms. The new entrant to that ever-growing list is nitazoxanide. This molecule is being promoted as magical cure for a wide range of enteric infections, not only bacterial but also 'viral'. The extent to which drug companies push their molecules to the medical fraternity is quite startling.

We came across one such campaign in which couple of medical representatives from a leading drug company were indoctrinating the benefits of nitazoxanide in rota-viral diarrhea. They stated that the drug is being used by most of the practicing pediatricians in all viral diarrheas and urged us to do so. They had referenced their claim to a small randomized controlled trial (RCT) published recently [1] and a sentence that appears in the current edition of Nelson's Text book of Pediatrics, which states that "Nitazoxanide, an anti-infective agent, has been effective in the treatment of a wide variety of pathogens including *Cryptosporidium parvum*, *Giardia lamblia*, *Entamoeba histolytica*, *Blastocystis hominis*, *C. difficile*, and rotavirus" which was again based on the same RCT [2].

The study which was being quoted was done in 38 children aged 5 months to 7 years to find the effect of nitazoxanide in rotaviral diarrhea. End point studied was the time from first dose of the drug to resolution of symptoms and was significantly low in children who received a 3 day course of nitazoxanide compared to those who received placebo. The

same investigator had also done an analogous study in 50 adult patients with similar results [3].

These results, although promising, cannot by itself be taken as a quality evidence for the use of nitazoxanide in rotaviral diarrhea. As most of the diarrheas in children are viral in etiology and self-limiting in nature, we feel that unnecessary antibiotics are not only irrational but also unscientific. The effectiveness of nitazoxanide in viral diarrhea, if any, should be analyzed thoroughly by reviewing the available results from large, well designed and multicentric RCTs in developing countries before drawing any ambiguous conclusions.

In view of high disease burden in developing countries, plots to exploit the situation by pharma majors to their economic benefit should be condemned strictly. Evidence based precise guidelines for the use of antibiotics in acute watery diarrhea especially for developing countries should be adopted before prescribing drugs pushed by pharmaceutical companies.

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