Looking Beyond the Fog—Apomorphine Demystified

Dear Editor,

We acknowledge the points made by the esteemed author. As pointed our thoughts to the observations are as below:

1. Apomorphine is a well-accepted and established therapy in moderate to advanced Parkinson's disease both as rescue therapy and as continuous dopaminergic therapies via infusion. The recent TOLEDO[1] and Euroinf multicenter studies[2] reestablished its efficacy parameters which are comparable to deep-brain stimulation (DBS) and levodopa infusion. However, for various reasons, it had eluded the Indian market and the recent introduction had come with various controversies related to sponsor issues. Hence, this paper would add most required clarity on the utilization of Apomorphine in Indian subjects and their responses to therapies. This would also unmask the various myths associated with Apomorphine therapy which have been unfortunately being circulated in social media in India.
2. As pointed out in the study, the current paper[3] reflects the initial clinically relevant experiences with Apomorphine after official availability in India, both in relation to Apomorphine response tests and subcutaneous infusion pumps. Long-term utilization and experiences are planned via the setup of an academic registry and in due time will add various aspects of this therapy in Indian subjects. Till now the molecule was not available in the Indian market directly to the patients. This paper, after its free availability in the Indian market, does add various aspects to its experience.[3] We do acknowledge the abstract of the presentation in 2007, wherein Apomorphine was tried for 2–15 days in five subjects with a reduction of dose in two patients, and withdrawal of levodopa in one.[4] This very short duration trial of Apomorphine did show that proper selection of patients is very critical to have good efficacy and outcomes with Apomorphine therapies similar to DBS.
3. Apomorphine response test is conducted to determine whether the subject gets benefits with Apomorphine (similar to levodopa challenge test). Serial dosages are used sequentially to assess the best clinical efficacy dose and also to document the possible adverse effects with the Apomorphine. This helps to decide the "rescue therapy dose" and also to decide whether the subject would be an apt candidate for Apomorphine pump therapy. Apomorphine response test is also used to assess levodopa responsiveness in suspected parkinsonism patients. It's a day procedure done over a period of a few hours. In our series, the Apomorphine response test was done to assess the clinical benefits of Apomorphine, which has been published in the paper.[1] Among these patients who qualified for Apomorphine pump therapies, few opted-in for the pumps (based on cost and comfort of using). The data of these subjects are reflected in the paper.[3]
4. The current paper[3] shows the results of Apomorphine in Parkinson's disease patients ONLY (as depicted in Figure 3). As pointed out, Apomorphine is used in levodopa responsive parkinsonism. Hence, similar to the process wherein levodopa is used in atypical parkinsonism patients in whom clinical benefits are noted, Apomorphine can also be considered for clinical benefits if requisite indications are met (like rescue therapy, uncomfortable fluctuations, etc.). We should remember that Apomorphine is a symptomatic therapy and appropriate patient selection and monitoring is the critical key to having the best benefits. As pointed out by the esteemed author, recent expert consensus group paper has extensively reviewed the clinical practice recommendation for both Apomorphine pens and pumps.[5] In brief, the indication of Pump therapies according to the clinical practice recommendations[5] is a) subjects requiring too frequent rescue therapies, b) dyskinesia limiting further oral therapy optimization, c) nonmotor symptoms associated with OFF symptoms, d) to simplify complex PD dosing regimens to improve convenience and compliance, e] As alternative to surgical therapy or Levodopa-carbidopa intestinal gel, and f] subjects in whom gastric absorption of levodopa is impaired.
5. As pointed out the subset analysis of patients receiving domperidone for 3 days prior to testing and on the day of testing in the sample was reviewed.[3] Clinically, there were no significant differences in adverse effect profile or frequency between 3 days treated vs same day treated patients. This was an observation seen in the study. We are definitely looking forward to a larger sample data for consideration.
6. The Apomorphine infusions were escalated over the weeks with a reduction of levodopa on a weekly basis. In our current published series (and also in unpublished data to date in our center), none of the patients developed the neuroleptic malignant syndrome. Proper selection and initiation of therapy under expertise hold the key for the best outcomes with the least adverse effects similar to any advanced therapies.

Any new therapy has to go through the "hype cycle." Erratic and unregulated usage may bring bad repute to many newer therapies. The experts in this field should take a lead to break the myths and disperse proper awareness about indications and judicious usage.

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Conflicts of interest

There are no conflicts of interest.

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