A Controlled Clinical Trial of ‘Styplon’ in certain Cases of Haemoptysis, Haematemesis and Epistaxis

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Haemorrhages may occur from various parts of the body e.g. from the respiratory system in the form of haemoptysis or from the gastrointestinal tract in the form of haematemesis and melaena, or from the nose in the form of epistaxis.

In some cases haemorrhage is due to intrinsic defects in the complicated mechanism of blood coagulation and sometimes due to generalised vascular pathology. In most of these cases specific anti-haemorrhagic therapy of the local disease there are hardly any agents available for checking the bleeding \textit{per se}.

Many drugs with varying formulae have been introduced in the past to deal with such haemorrhagic disorders and their effects variously reported. Most of these are formulations including calcium, vitamins K, C, P, etc. even though there is no evidence of their deficiency being responsible for causing or aggravating the bleeding. The use of such formulations has been based on clinical impressions and hardly any clinical trials have been reported.

The present work was undertaken study the effect of Styplon in bleeding of haematemesis, haemoptysis and epistaxis. This is a new agent introduced by the Himalaya Drug Co., based on indigenous drugs the composition of which is as follows:

Each tablet contains:
Chandrakala 0.13 g
Amla (Phyllanthus emblica) 65 mg
Nagkeshar (Mesua ferrea) 32 mg
Somalata (Ruta graveolens) 16 mg
Punarnava salts (Boerhaavia diffusa) 6 mg
Moolee salts (Raphanus sativus salts) 6 mg
* Praval bhasma 65 mg
* Lajward bhasma 16 mg

* Prepared in Mahaneem (Melia azadirachta), Vach (Acorus calamus), Gorakhmundi (Sphaeranthus indicus), Lajwanti (Mimosa pudica), Daruhaldi (Berberis aristata), Kulinjan (Alpinia officinarum) and the juices and decoctions of other styptic drugs.
MATERIAL AND METHODS
The clinical material for the present study comprises 100 cases attending the S.N. Hospital, Agra, with haemorrhage from different sites of the body. Their ages ranged from 13 years to 66 years with a mean of 39.2 years. The break-up of these cases is as follows:

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Bleeding Site</th>
<th>No. of cases</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Haemoptysis</td>
<td>52</td>
<td>52%</td>
</tr>
<tr>
<td>2.</td>
<td>Haematemesis</td>
<td>30</td>
<td>30%</td>
</tr>
<tr>
<td>3.</td>
<td>Epistaxis</td>
<td>18</td>
<td>18%</td>
</tr>
</tbody>
</table>

A detailed history was taken in every case about the start of illness and duration of haemorrhage and any history of haemorrhage in the past. An inquiry was also made about the family history of haemorrhagic disorders. Clinical examination of the patient was done in detail to find out the cause of haemorrhage and associated diseases. All the cases taken for the present study were investigated according to the following plan:

1. Blood routine examination for haemoglobin total and differential white cell counts and any presence of abnormal cells.
3. Bleeding and coagulation time.
4. Clot retraction time.
5. Prothrombin time by one stage method of quick.

All the patients were put on Styplon, 2 tablets three times a day, and were assessed daily. The dose was continued till the bleeding stopped and then one tablet 3 times a day was given for another 4 or 5 days and then stopped.

The response was categorised as good, if bleeding stopped in less than three days, and fair if bleeding stopped in four to seven days. If there was no response even after seven days the cases were labelled as unresponsive. As regards haematemesis the bleeding was considered to have stopped when the occult blood in the stool became negative.

Thirty cases of similar bleeding disorders were also studied in the present series who were not given Styplon but placebo tablets, the shape and size of which simulated the tablet of Styplon. The etiological break-up in the groups is shown in Table 2.

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Bleeding Site</th>
<th>No. of cases</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Haemoptysis</td>
<td>18</td>
<td>60%</td>
</tr>
<tr>
<td>2.</td>
<td>Haematemesis</td>
<td>6</td>
<td>20%</td>
</tr>
<tr>
<td>3.</td>
<td>Epistaxis</td>
<td>6</td>
<td>20%</td>
</tr>
</tbody>
</table>

The results were graded as in the trial group.

The treatment for associated disease was also given along with Styplon/Placebo in all the cases.

OBSERVATIONS
The haematological investigations revealed no abnormality in any of the cases except for blood haemoglobin. Out of 100 cases 62 cases were mildly anaemic as their haemoglobin levels were between 9-12 gm%. Twenty-two cases were moderately anaemic as their haemoglobin levels were between 5-9 gms% and 16 cases were severely anaemic as their haemoglobin was below 5 gm%.
Out of 100 cases, 52 had haemoptysis and all these cases were suffering from tuberculosis. The response was good in 36 cases, fair in 10 cases, while six did not respond to Styplon. Thus in the cases of haemoptysis due to pulmonary tuberculosis, the response was good in 69.2 per cent and fair in 19.2 per cent., 11.6 per cent did not respond to the treatment with Styplon.

Thirty cases were of haematemesis due to peptic ulcer. The response was good in 18 cases and fair in 12 cases. Thus results were good in 60 percent cases and fair in the remaining 40 percent.

Table 3 shows the response to Styplon in tabular form.

<table>
<thead>
<tr>
<th>Bleeding site</th>
<th>No. of cases</th>
<th>Good</th>
<th>Fair</th>
<th>No response</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>Haemoptysis</td>
<td>52</td>
<td>36</td>
<td>69.2</td>
<td>10</td>
</tr>
<tr>
<td>Haematemesis</td>
<td>30</td>
<td>18</td>
<td>60.0</td>
<td>12</td>
</tr>
<tr>
<td>Epistaxis</td>
<td>18</td>
<td>12</td>
<td>66.6</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100</td>
<td>66</td>
<td>66%</td>
<td>28</td>
</tr>
</tbody>
</table>

Eighteen cases were suffering from epistaxis. The response was good in 12 and fair in six cases. Thus 66.6 percent had a good response to Styplon while 33.3 percent had a fair response.

Thus out of a total 100 cases, 66 percent cases had good response to Styplon. Response was fair in 28 percent; 6 percent cases did not respond. No side-effects were observed.

In the control group of 30 cases in which placebo tablets were given, bleeding stopped within three days in 4 cases (13.3 percent) showing a good response and in another nine cases stopped within 7 days (30.0 percent) showing a fair response. In the next 17 cases (56.7 percent) bleeding did not stop in seven days. Table 4 shows break-up of response in control cases.

<table>
<thead>
<tr>
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<th>No. of cases</th>
<th>Good</th>
<th>Fair</th>
<th>No response</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>Haemoptysis</td>
<td>18</td>
<td>-</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>Haematemesis</td>
<td>6</td>
<td>1</td>
<td>16.6%</td>
<td>2</td>
</tr>
<tr>
<td>Epistaxis</td>
<td>6</td>
<td>3</td>
<td>50.0%</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>30</td>
<td>4</td>
<td>13.3%</td>
<td>9</td>
</tr>
</tbody>
</table>

Statistical comparison and application of Chi Square test showed that the percentage of good and fair response collectively in the Styplon group was significantly greater than in the control group (P<0.05). Considering individual bleeding sites the response in the Styplon group is better than in the control group for haemoptysis, haematemesis, epistaxis; but haematemesis and epistaxis cases in the control group are too small in number to permit statistical comparison. The percentage of good and fair response in the Styplon group of haemoptysis is significantly greater than in the control group.

**DISCUSSION**

In the present study, the response to Styplon was good in 66 cases out of 100. Thus the majority of cases showed good response to Styplon therapy. The response was fair in 28 cases; while six cases did not respond to Styplon. Thus if we combine the cases of good and fair response, the total number of cases responding comes to 94 and only six cases showed no response to the drug. Thus the percentage of the cases who responded to Styplon is 94 percent while 6 percent did not respond to Styplon.
This clinical trial was not strictly double-blind as one of the authors (B.K.) knew the differentiation of drug and placebo tablets. But this should not seriously invalidate our results in view of the stoppage of bleeding being such an objective symptom. The other clinicians and the pathologists involved in the trial had no knowledge as to whether drug or placebo was used.

Wagh reported a total of 85 percent response to Styplon therapy on a study of 225 cases suffering from various bleeding disorders such as epistaxis, bleeding gums, haemoptysis, rectal bleeding, haematuria, etc. Out of these, the response was good in 125 cases and fair in 67 cases. No side-effects were noted by him either.

Patel tried Styplon in 57 cases of uterine bleeding due to various causes. Out of these 57 cases, 37 were of dysfunctional uterine bleeding. He obtained good results in 12 out of these 37 cases, fair results in 19 cases while six cases did not respond.

Manusukhani from Bombay reported an overall response of 83.8 percent in cases of haemorrhage after dental extraction.

It appears from the present clinical trial that Styplon has a definite role in minimising bleeding from various sites. The exact mechanism by which Styplon acts and the active principle operative merits further study.

REFERENCES