Administration issues in cancer management focus on rare complications
INCIDENCE OF VASCULAR PAIN FOLLOWING GEMCITABINE CHEMOTHERAPY INFUSION WITH MODIFIED DILUENT

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In previous practice, 100 ml of 0.9% sodium chloride for injection was used as diluent for gemcitabine.

According to our experience around a quarter of patient receiving gemcitabine diluted in 100 ml of 0.9% sodium chloride via peripheral vein experienced severe vascular pain.

Co-administration with normal saline when reinitiation.

A volume of diluent was modified from 100 ml to 250 ml that can be managed to complete infusion within 30 minutes.
Objective

• To determine incidence and severity of vascular pain following modified diluent for gemcitabine solution.
Methods

- The observational study.
- Cancer patients who were treated with gemcitabine based regimen during June to November 2015 were enrolled in the study.
- Gemcitabine (1000-1250 mg/m²) was diluted in 250 ml of normal saline and infused over 30 minutes peripherally.
- Vascular pain incidence and severity were assessed during drug administration using visual analogue scale (VAS).
- Incidences of vascular pain had been collected and analyzed by descriptive statistic.
• One hundred patients were enrolled in the study
• 51% were male and 49% were female.
• Their mean (SD) age was 61+1 years.
• Non-Small Cell Lung Cancer was the most common cancer followed by pancreatic cancer and cholangiocarcinoama.
## Results

<table>
<thead>
<tr>
<th>Pain score</th>
<th>Severity</th>
<th>Patients (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>64 (64%)</td>
</tr>
<tr>
<td>0</td>
<td>-</td>
<td>28 (28%)</td>
</tr>
<tr>
<td>1-3</td>
<td>Mild pain</td>
<td>8 (8%)</td>
</tr>
<tr>
<td>4-6</td>
<td>Moderate pain</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>7-10</td>
<td>Severe pain</td>
<td></td>
</tr>
</tbody>
</table>
Results

• The vascular pain incidence was reported in 36 patients (36%).
• 28 patients (78%) and 8 patients (22%) were reported mild and moderate pain severity, respectively.
• Severe pain had not been found.
• Mean vascular pain score was 1.3±0.56.
Conclusion

• This study demonstrated that using of 250 ml of normal saline as diluent for gemcitabine chemotherapy, the vascular pain incidence was 36% and The pain score appeared to be minimal.

• Mean±SD of pain score is 1.3±0.56 and there was not incidence of severe pain.
We use NSS 250 ml. as diluent for Gemcitabine.

All patients can receive medication as per prescription.