THE COMPARISON OF MATERNAL LEUKOSYTOSIS INCIDENCE BETWEEN PRETERM AND AT TERM PREMATURE RUPTURE OF MEMBRANE IN PANEMBAHAN SENOPATI HOSPITAL, BANTUL YOGYAKARTA

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INTRODUCTION

• Mortality is a final process of life, one of the example is maternal mortality in delivery process. Based on Indonesian Demographic and Health Survey (IDHS) in 2012 there is an increasement of Maternal Mortality Rate (MMR) from 228 evidences (2007) into 359 evidences (2012) per 100,000 live births (Saputra, 2013).

• The increasing of MMR is influenced by several factors, one of them is infection PROM is the most caused.
• Preterm premature rupture of membranes is being the most common factor causing morbidity and mortality for mother and baby in Indonesia (Manuaba, 2010).

• This is very dangerous because it can cause infection for mother and baby (Muntoha et al, 2012).

• Infection in pregnant women should be detected early in order to prevent premature labor or other intrauterine disorders.
• Routine blood tests can indicate the presence of infection, by counting the number of white blood cells (leukocytes).

• Generally, leucocytes are the indicators of infection in the body, so the increasing of leukocytes level in the blood indicates an active infection in the body (Lopez, et al., 2010)
• When the membranes rupture in younger gestational age (Preterm), the latent period will become longer (Wardhani, 2014) and more longer latent period will increasing the infection risk that characterized by leukocyte increasement (leukocytosis).
Based on this comparison, researchers interested in studying the incidence of maternal *leukocytosis* between preterm (PPROM) and aterm (PROM).
RESEARCH METHOD

- This research used observational comparative with cross sectional study design.
- Samples in this research based on the medical records of pregnant women with preterm (PPROM) and aterm (PROM) in Panembahan Senopati Hospital, Bantul.
- Time: from January 2013 up to June 2015.
- Sampling was taken by purposive sampling method with 62 samples which divided into two groups.
• First group was preterm (PPROM) and the other group was at term (PROM), each of them includes 31 samples.

• Final samples that obtained from the field were 66 samples and divided into two groups and each group has 33 samples.

• The data were analyzed using Chi-square test.
Samples were taken based on inclusion and exclusion criteria.

- **Inclusion Criteria**
  1) Pregnant women with PPROM (gestational age less than <37 weeks)
  2) Pregnant women with PROM (≥37 weeks gestation)
  3) Vaginal Delivery

- **Exclusion criteria**
  1) Pregnant women with a complication of pregnancy (preeclampsia, eclampsia)
  2) Pregnant women with a history of infection before and during pregnancy (urinary tract infection).
  3) Pregnant women with a history of chronic disease.
  4) Data of medical record was incomplete
• Instruments that used in this research was secondary data from medical records of pregnant patient with PPROM and PROM.

• From the medical records can be seen the result of leucocytes number. Leukocytes number result which more than 15,000 mm3 was categorized as leukocytosis and less than 15,000 mm3 was categorized as not leukocytosis.
RESULT

Table 1.
Distribution based on the age of the mother

<table>
<thead>
<tr>
<th>Age of the mother</th>
<th>Quantity</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>&lt; 20 years old</td>
<td>3</td>
<td>4.5%</td>
</tr>
<tr>
<td>20-35 years old</td>
<td>56</td>
<td>84.8%</td>
</tr>
<tr>
<td>&gt;35 years old</td>
<td>7</td>
<td>10.6%</td>
</tr>
<tr>
<td>Total</td>
<td>66</td>
<td>100%</td>
</tr>
</tbody>
</table>

The table above showed that most pregnant women who have premature rupture of membranes is in the productive age of 20-35 years old as much as 84.8%.