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## Effect of Phoenix *dactylifera* palm date (Ajwa) on infection, hospitalization and mortality among pediatric cancer patients at single medical institute in Saudi Arabia

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**Background:** Recent studies showed that Phoenix *dactylifera* palm date have good nutritious value and medicinal potential. The aim of the study was to determine the effect of regular intake of Phoenix *dactylifera* palm date called Ajwa on number of infections, hospitalization associated with fever neutropenia and mortality of pediatric cancer patients admitted to King Abdul-Aziz University Hospital, a tertiary care medical center, Faculty of Medicine, King Abdul-Aziz University, Jeddah, Kingdom of Saudi Arabia.

**Methods:** A non-randomized controlled intervention study was done during the period of 2008-2015. A total of 55 pediatric cancer patients with hematologic or non-hematologic malignancies (who were treated by chemotherapy/radiotherapy) were enrolled in the study. A total of 32 patients were given Ajwa and 23 did not administer Ajwa. The outcomes were compared between both groups within the 5 years follow-up period. Culture and sensitivity was done. The study was approved by Ethics Research Committee of the hospital.

**Results:** The study included 27 males and 28 females, with male to female ratio of almost 1:1. Their mean age was 9.3 with S.D. of  $\pm 4.4$ . Children enrolled in the Ajwa group showed minimal positive cultures as compared to non Ajwa (control) groups during the 5-year follow-up period. There is marked reduction in the mortality rate of patients enrolled in Ajwa group as compared to other group (RR=0.74; 95 % CI: 0.06-1.00). Furthermore, there was a significant reduction in the number of hospital admission per year in the Ajwa group ( $5.74 \pm 5.8$  times) as compared to others ( $17.34 \pm 10.29$  times), with a statistical significant difference ( $p \leq 0.05$ ). Additionally, the majority of patients on Ajwa group are currently off treatment. The main cause of death of patients in the non Ajwa group was disease progression and infections (76.9%). Ten patients with Acute Myeloid Leukemia in the Ajwa group (31.2%) showed protection against chemotherapy induced cardiac complications, while this didn't occur among the control group.

**Conclusions:** Regular intake of Phoenix *dactylifera* (Ajwa) showed a significant decrease in the number of infections, number of hospitalization per year and mortality rate among pediatric cancer patients. Ajwa have some sort of cardiac protection. Adding Ajwa to the standard treatment of pediatric cancer patients can improve their treatment outcome.

### Biography

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