

Global Congress on Integrated Healthcare

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Under The Patronage of his Excellency Dr Yousef Goussous

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Cytochrome 4Z1 Expression Is Correlated with Poor Prognosis in Patients with Cervical Cancer

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Abstract

Background: cervical cancer is one of the most common malignancies in women worldwide and its management remains challenging and complex. As Cytochrome4Z1 (CYP4Z1) is overexpressed in many tumours, its expression in cervical cancer is unknown. Therefore, the present study aimed to evaluate CYP4Z1 expression in cervical cancers.

Methods: CYP4Z1 expression was immunohistochemically assessed in 100 cases of cervical cancers along with ten normal cervix tissues, and the enzyme's relationship to several clinicopathological features and survival was explored.

Results: CYP4Z1 was strongly expressed in 55% of cervical cancer patients. Normal cervix samples were negative for CYP4Z1 expression. Importantly, this expression was significantly found in patients with the late stage of the disease, lymph node metastasis, and high tumour invasion ($p < 0.05$). Interestingly, CYP4Z1 expression was significantly correlated with shorter survival times of cervical cancer patients. Univariate analysis showed that CYP4Z1 expression, tumour stage, lymph node metastasis, and tumour invasion were significantly correlated with patient survival ($p < 0.05$). The multivariate analysis revealed that only CYP4Z1 expression and tumour stage were significantly correlated with patient survival ($p < 0.05$).



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Conclusions: CYP4Z1 expression is associated with cervical cancer patients' survival and may serve as an independent predictor of poor prognosis in cervical cancer patients.

Keywords: cancer; cervical cancer; cytochrome P450; cytochrome4z1; immunohistochemistry.

Biography

Yanal Al-mahdy is a 5th year MD student at Mutah University. Yanal has graduated from high school with an average of 94% and scored at 96th centile over the Hashemite Kingdom of Jordan. Yanal joined Mutah's medical school in 2017 and during the last 5 years he participated heavily in voluntary and extracurricular activities. Yanal joined a student based voluntary group at his home university called Medicine and Surgery Committee (MSC-MU) which specializes at providing academic services for undergraduate student and he became its president in September / 2022. Yanal also believes that undergraduate students should contribute to medical research and thus he joined the research ethics committee in October / 2022. He also joined Dr. Yousef Al-saraireh's last research project which investigated various CYPs and their potential role in the progression of cancers in selected organs. This project led to publication of 8 articles in peer-reviewed journals and he was an author in one of these articles. Yanal has a vision in becoming a medical doctor who contributes positively to both his community and the scientific research community, and this drives him to give his best every day.