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## **ABSTRACT**

In this study, thirty prostate cancer patient examined in order to measure the function of bone scan and PSA level in detection of prostate carcinoma in case of staging cancer.

And to evaluate the value of radionuclide bone scan and tumour marker. And to define the role and methods of them.

It was found that twenty-three cases (76.7%) out of thirty showed a positive bone scan, while twenty-five cases (83.3%) out of thirty showed abnormal PSA level.

## ملخص البحث

في هذه الدراسة تم تصوير ثلاثون مريضاً بالمركز القومي للعلاج بالأشعة والطب النووي بالخرطوم وهم مرضي سرطان البروستاتة بغرض معرفة طور السرطان ومدى انتشاره في العظام وأيضاً لمعرفة أهمية الجمع بين تصوير العظام بمادة مشعة وقياس انتجين البروستات الخصوصي .

وكانت النتائج أن 23 حالة ظهر فيها انتشار سرطان البروستاتا في العظام (7.76%) في حين أن 25 حالة سجلت معدلات عالية في فحص انتجين البروستات الخصوصي (83.36%) .

كما أن الجمع بين هذين الفحصين يؤدي إلي سرعة اكتشاف سرطان البروستاتة ويحسن من نتائج العلاج .

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**List of Abbreviations**

Alpha feto protein	AFP
Benign prostatic hyper plasia	BPH
Cancer	Ca
Carcino Emberyonic Antigen	CEA
Computed Tomography	CT
Digital Rectal Examination	DRE
Diahydrostorone	DHT
Ethylene diamine tetracedic Acid	EDTA
Food and drug adminstration	FDA
human Chronic Goandotrophin	HCG
Human Immuno defency Virus	HIV
Iodino-125	I <sup>125</sup>
Immuno radiometric assay	IRMA
Luteinising hormone	LH
luteinising hormone-releasing hormone	L HRH
Methylene diaphosphate	MDP

	Molybdenum-99	Mo <sup>99</sup>
	Magnetic Resonance Imaging	MRI
	National Cancer Institute	NCI
	No of pt	Number of patient
PAP	Placental Alkaline Protein	
	Prostate Specific Antigen	PSA
	Radiation and Isotope Center of	RICK
		Khartoum
	Technetium-99 metastable	Tc <sup>99m</sup>
	Tumour Lymph Node Metastases	TNM
	Trans Urethral Resection Prostatectomy	TURP