COMPREHENSIVE ASSESSMENT OF ELDERLY PATIENTS TAKING MULTIPLE DRUGS AND ASSOCIATED ADVERSE EFFECTS

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INTRODUCTION

According to World Health Organization (WHO), most developed nations have recognized the sequential age of 65 years as a designation age of 'elderly' persons. Comprehensive geriatric assessment can be define as a method used by healthcare professionals to examine the health of fragile and elderly people in order to better manage them. Multimorbidity (complex, multiple, and interdependent problems) are more common in older persons, making their care more difficult than in younger generation or those with only single medical problem.CGA is a multifaceted, multidisciplinary diagnostic and therapy procedure that determines an older individual's physical, emotional, and functional abilities and develops a coordinated and integrated treatment and follow-up plan.

Multidrug denotes the use of multiple pharmaceuticals, the use of drugs that aren't prescribed for a specific ailment, or the ineffective or improper use of medications that aren't medically essential.

While multidrug therapy can be beneficial and effective in the management of Comorbidities in the elderly, research has clearly demonstrated a strong link between multidrug therapy and some negative clinical outcomes.This review examines the negative health effects of multidrug therapy in the elderly, as well as the strategies that can help them better manage their medications.

AIM OF THE WORK

This study aims to study the potential side effect among elderly patient taking multidrugs who are admitted in geriatric department in Alexandria University Hospital.

SUBJECTS AND METHODS

The present study included 100 patient who are on multidrug regime and are admitted in Geriatric department in Alexandria medical university hospital.Research was conducted through observational, retrospective study.

Exclusion criteria

Patient who are less than 65 years of age.

Critical ill patient.

Patient with malignancy.

RESULTS

The amount of medicines the patient was taking seemed to have a statistically meaningful effect on symptoms after treatment began.74% of elderly patients were taking over-the-counter medications. Furthermore, 84 percent of our patients were on potentially inappropriate medication. Serum Creatinine was statistically significant when compared to the number of medications taken before admission. The mean Katz Index for ADL score was considerably lower in multidrug patients. There was also a statistically significant negative association between the total number of medicines used by the patient and the Kazl Index for ADL mean score. The number of prescribed drugs and the risk of falling had a statistically significant negative relationship.

Table 1: Correlation between number of prescribe medication with total score for Geriatric comprehensive scales (n=100)

Total score	Number of prescribe medication			
	Current		Pervious	
	r_s	p	r_s	p
Geriatric Depression Scale (GDS)	0.160	0.112	0.030	0.770
Mini Nutritional Assessment (MNA)	-0.159	0.114	-0.103	0.307
Katz index of independence in activities of daily living	-0.321*	0.001*	0.004	0.968
Fall Risk Factors	0.293*	0.003*	0.042	0.681
MMSE	-0.207*	0.039*	0.021	0.834
Best imaginable health state	-0.312*	0.002*	0.008	0.935

r_s: Spearman coefficient *: Statistically significant at $p \leq 0.05$

Table 2: Correlation between number of prescribe medication with CBC and biochemistry (n=100)

CBC and biochemistry	Number of prescribe medication			
	Current		Pervious	
	r_s	p	r_s	p
HB	-0.109	0.281	-0.031	0.762
PLTs	-0.121	0.231	0.017	0.869
Urea	0.141	0.162	0.311*	0.002*
Creatinine	0.186	0.064	0.210*	0.036*
ALT	0.019	0.855	0.040	0.693
AST	-0.005	0.964	-0.049	0.627

r_s: Spearman coefficient *: Statistically significant at $p \leq 0.05$

Table 3: Relation between numbers of prescribe medication and any new symptoms after initiation medication admission? (n=100)

Number **of prescribe medication**	**Q11.Any new symptoms after initiation medication admission?**			**H**	**p**
	No (n=27)	**Yes (n=39)**	**Status QUO (n=34)**		
Current					
Min. – Max.	4.0 – 15.0	6.0 –18.0	4.0 – 18.0	16.595*	<0.001*
Mean ± SD.	7.37 ± 2.69	10.38 ± 2.93	8.76 ± 3.10		
Median	7.0	9.0	8.0		
Pervious					
Min. – Max.	0.0 – 6.0	1.0 – 9.0	0.0 – 8.0	0.489	0.783
Mean ± SD.	3.19 ± 1.78	3.54 ± 1.86	3.24 ± 2.03		
Median	3.0	3.0	3.0		

H: H for Kruskal Wallis test

p: p value for comparing between the three categories

*: Statistically significant at $p \leq 0.05$

CONCLUSION

Multidrug is an increasing problem among senior people. Patients with multidrug had considerably greater age, urea, and creatinine. Individuals with multidrug had a considerably higher risk of falling, dependency, and malnutrition. The number of medicines taken had a significant positive connection with age, urea, creatinine, AST and the number of medication (multidrug). Elderly patient with non-specific complains need screen for systematically for drug related problems. Clinicians should carefully assess the inappropriate medication in the treatment of older persons, to avoid pontential adverse events i.e possibility of an increase in the risk of outdoor falls dependency and malnutrition