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Typical and Atypical Antipsychotic Drug Utilization in a Psychiatric Clinic in Palestine

مضادات الاضطرابات النفسية التقليدية وغير التقليدية المستعملة في العيادات النفسية في فلسطين

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Abstract

Pattern of atypical and typical antipsychotic medications among one hundred and twenty four patients receiving these medications was investigated and analyzed. Males constitute approximately 61% of the sample. More than half of the patients in the sample were less than 50 years old. Most the patients prescribed antipsychotic medications were having schizophrenia (61%). Analysis of the prescribed antipsychotics for the patients showed that approximately 99% of the patients were receiving conventional typical antipsychotic medications either as single (70.2%) or combination (17.7%) or in depot form (10.4%). Less than 2% of the patients were receiving atypical antipsychotic medications. Among those prescribed conventional typical antipsychotic drugs, only (56%) were co-prescribed anticholinergic drugs. The underutilization of atypical antipsychotics and the underutilization of anticholinergics to be co-prescribed with conventional antipsychotics require further evaluation and investigation at the national Palestinian level.

ملخص

نمط استخدام أدوية الشيزوفرينيا القديمة والجديدة بين 124 مريضا" كانوا يتناولون هذة الأدوية قد تمت دراستها وتحليلها. العينة كانت مكونة من 61% من الذكور وكان أكثر من 50% من المرضى ممن أعمارهم تقل عن 50 سنة. تحليل عينة المرضى اشارت الى أن 61% من المرضى الذين يتناولون هذه الأدوية كانوا يعانون من مرض انفصام الشخصية. تحليل الأدوية أظهر أن 99% من المرضى يتناولون الأدوية من النوع القديم على شكل دواء واحد(70.2%) أو عدة أدوية (17.7%) أو أدوية ذات المفعول الطويل(10.4%). أقل من 2% من المرضى كانوا يتناولون الأدوية الحديثة. بين المرضى الذين كانوا يتناولون الأدوية القديمة، فقط 56% كانوا يتناولون أدوية ذات التأثير المضاد للأسيتيل كولين. الاستعمال القليل للأدوية الحديثة أو لمضادات الأسيتيل كولين يحتاج الى اعادة تقييم ودراسة شاملة على مستوى فلسطين.

Introduction

The antipsychotic drugs are considered the cornerstone for the treatment of schizophrenia and other psychotic disorders [1)]. After the introduction of clozapine in the early 1990 several other ‘atypical’ antipsychotics have been introduced and in June 2002, the National Institute for Clinical Excellence (NICE) in London released guidance on their use [(2)]. Many clinicians argue that atypical antipsychotic drugs should be the first line of treatment for schizophrenic illness where this is possible [3)]. Several publications have indicated that atypical antipsychotic drugs are superior in efficacy to conventional antipsychotic drugs especially with respect to control of negative symptoms and lack of extrapyramidal side effects [(4– 6)]. However, the atypical antipsychotic drugs have several serious problems like blood toxicity, weight gain, diabetes mellitus and arrhythmia [2)]. Although the new generation atypical antipsychotic drugs are very commonly prescribed, the pattern of use of the antipsychotic drugs have not been studied in Palestine. The purpose of this short communication is to investigate and therapeutically the pattern of prescribing of antipsychotic medications in a governmental psychiatric clinic (Al-Makhfeh Clinic / Al-Makhfeh / Nablus) in Palestine.

Methodology

This study was carried out in april, 2003 and ended in August 2003. The full drug and disease profile of one hundred and twenty four out-patients attending the psychiatric governmental clinic in Al-Makhfeh Health Clinic / Al-Makhfeh / Nablus (north of Palestine) and receiving antipsychotic medications were reviewed and recorded. Those one hundred and twenty four patients represent all the patients receiving antipsychotic medications and attending that clinic. The access to the files was made by a pre-approval from the ministry of health and the personnel working in the psychiatric clinic. Extraction of the data from the files was made by one of the working psychiatrists in the unit who was assigned by the ministry of health. The data in the files concerning age, sex, prescribing physician, diagnosis and medications. data were entered in Statistical Package for Social Sciences (SPSS) program version 10 for windows and analyzed.

Results

The patients studied were 76 males (61.3%) and 48 females (38.7%). The age distribution of the patients indicates that more than half of the patients

(54%) were between the age of 30 and 50 years. Analysis of disease conditions affecting the patients showed that the most common disorder for which the antipsychotic drugs were prescribed was schizophrenia followed by dementia and major depression (Table 1, Figure 1).

Table (1): Types of psychiatric diseases seen among the 124 patients treated with antipsychotic medications.

Disease conditions	Frequency	Percentage
Schizophrenia	76	61.3%
Dementia	19	15.3%
Major depression	14	11.3%
Bipolar disorder	2	1.6%
Mania	5	4%
Schizoaffective Disorder	2	1.6%
Anxiety	4	3.2%
Others	2	1.6%

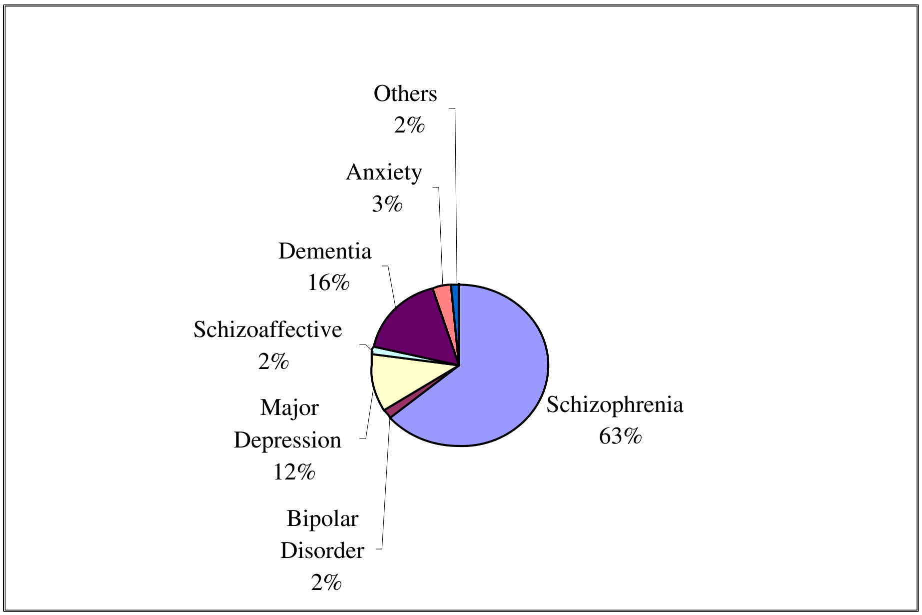

Figure (1): Types of psychiatric diseases among the sample

The systemic review of drug profile of the patients showed that the majority of the patients were receiving single conventional antipsychotic medication (70.16%). Approximately 28.22% were receiving either combinational or depot antipsychotic medications. Less than 1.61% of the patients were receiving atypical antipsychotic medications (Table 2). Analysis of the type of drug versus the type of disease indicated the two thirds of schizophrenic patients were receiving single conventional antipsychotic medications. The atypical antipsychotic medication (clozapine) were prescribed for only two patients who were diagnosed with schizophrenia. For the class of patients diagnosed with schizophrenia, (74/76; 97.37%) were receiving conventional antipsychotic drugs as single, combinational or depot medication.

Table (2): Two classes of antipsychotic medications and the corresponding psychiatric diagnoses. Where 1: single conventional antipsychotic, 2: combinational antipsychotic medications, 3: depot conventional antipsychotic medications, 4: atypical antipsychotic medications.

	Schizophrenia	**Dementia**	**Major Depression**	**Mania**	**Bipolar disorder**	**Anxiety**	**Schizoaffective**	**Headache**	**Others**	**Total of Patients**
1: (Single)	49	17	10	2	2	3	1	2	1	87
2: (Multiple)	16	1	3	1			1			22
3: (Depot)	9	1	1	2						13
4: (Atypical)	2									2
Total	**76**	**19**	**14**	**5**	**2**	**3**	**2**	**2**	**1**	**124**

The antipsychotic medications prescribed for the one hundred twenty four patients indicates that chloropromazine (Taroctyl®) was the most commonly prescribed antipsychotic medication either as single or combinational therapy (Table 3).

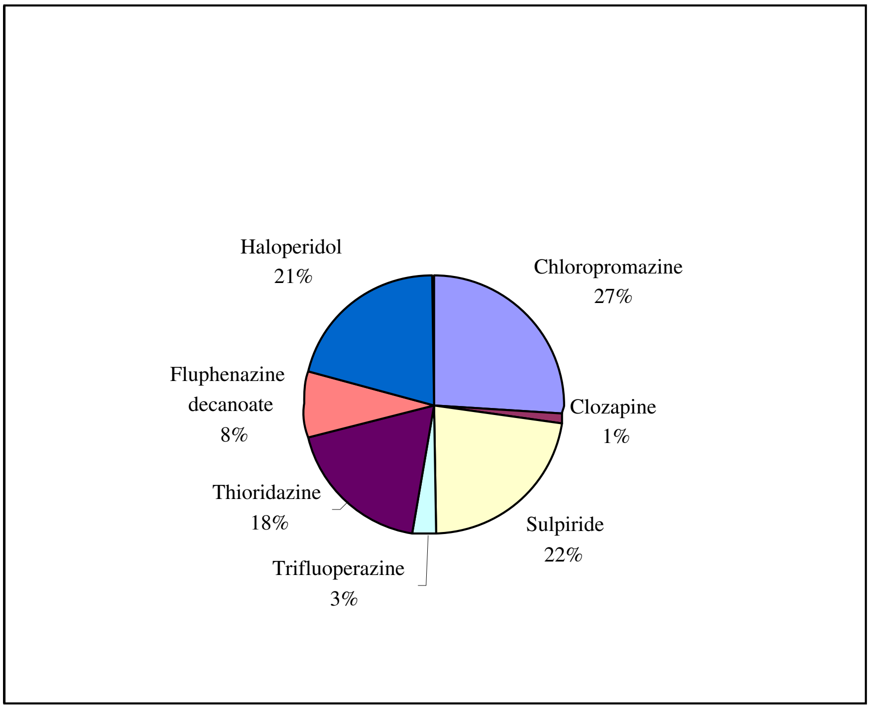

Figure (2): Percentages of various antipsychotic medications utlized by the sample patients.

Analysis of the drugs concomitantly prescribed with the antipsychotic drugs showed that single conventional antipsychotic drugs were mainly co-prescribed with anticholinergics followed by benzodiazepine (BZD) and antidepressants. Fifty three patients (53/124, 42.7%) of those receiving conventional antipsychotics were not receiving anti-cholinergic drugs. The only anticholinergic drug co-prescribed was trihexyphenidyl.

Table 3: Percentages of those prescribed antipsychotic medications who were prescribed other psychotropic medications.

	Conventional			**Atypical**
	Single	**Multiple**	**Depot**	**Atypical**
Anticholinergics	44	16	9	0
Mood Stabilizers	2	0	1	0
Antidepressants	10	1	0	1
Benzodiazepines	13	1	0	0
None	26	4	3	1

The numbers in table 3 are overlapping such that the total medications for the patients is not equal to the total number of patients (one hundred and twenty four). For example, a patient receiving a single conventional antipsychotic drug may be co-prescribed a mood stabilizer and an antidepressant. This overlapping, as can be seen from the table, is for few patients and makes the total to become one hundred and thirty three instead of one hundred and twenty four. Because of this overlapping of the data, the numbers *must not* be arithmetically added and hence no total is not seen in the table. Prescribed co-medications regimens include (antipsychotics+anticholinergics + Benzodiazepines{BZD}), (antipsychotics +anticholinergics + mood stabilizers), (antipsychotics +antidepressants + BZD) and (antipsychotics + mood stabilizers + BZD).

Analysis and crosstabulation of antipsychotic drugs used for each psychiatric disease is shown in table 4 where it can be seen that Chloropromazine (CPZ) represent the most commonly prescribed medication as single or in multiple antipsychotic medications. Furthermore, CPZ was most commonly used among schizophrenic patients followed by haloperidol and fluphenazine decanoate.

Table 4: Cross tabulation of antipsychotic medications versus psychiatric diseases.

	Disease									
Drug	**Schizoph.**	**Dementia**	**Depression**	**Mania**	**Bipolar Disorder**	**Anxiety**	**Schizoaff.**	**Headache**	**Others**	**Total**
CPZ	20	4	1							25
Haloperidol	11	5	4		1		1			22
Thioridazine	12	5	4	1	1				1	24
Sulpiride	5	3	1	1		2		2		14
Trifluoperazine	1					1				2
Fluphenazine Decanoate	8	1	1	2			1			13
Cloazapine	2									2
CPZ + Halo	4		2	1						7
CPZ + Thio.	1		1							2
CPZ + Sulp.	8	1								9
Sulp. + Thio	1									1
Thio + Triflu	1									1
CPZ + Triflu	1									1
Sulp + Halo	1									1
Total	**76**	**19**	**14**	**5**	**2**	**3**	**2**	**2**	**1**	**124**

CPZ: Chloropromazine, Halo. : haloperidol. Triflu.: Trifluperazine, Thio: Thioredazine, Sulp. : Sulpiride,

Discussion

Although most of the published guidelines for the use of antipsychotic favor the use of atypical ones [7], the majority of the patients (122/124) in this study, were receiving the old generation conventional typical antipsychotic medications particularly haloperidol and chloropromazine. The percentage of patients receiving the atypical antipsychotics was less than 2% (2/124). This is not in accordance with the general findings that clinical efficacy and safety of these conventional antipsychotics were shown to be less than that of atypical new generation antipsychotic medications. In other countries, the data for atypical antipsychotic prescribing were far away from those found in our results: In UK, 18% of antipsychotic prescriptions are for atypical drugs, in Italy the percentage is 42% and in the USA it is 62% [8]. It has been indicated by psychiatrists in the governmental sector that the majority of patients in Palestine who are receiving typical antipsychotic medications are usually denied access to the newer atypical drugs until they have failed to respond to or tolerate conventional treatments. This pattern of usage is not due to unavailability atypical antipsychotic, rather, it might be due to the cost difference between the typical and atypical antipsychotic. Among those patients receiving the typical antipsychotic medications, (22/124) were receiving two - drug combination antipsychotics. Similar patterns of polypharmacy have been noted in other countries. In a study in Australia, 13 percent of all outpatients received more than one antipsychotic medication [9]. In a study in Austria, 47 percent of patients received prescriptions for two antipsychotic medications, and 8 percent received prescriptions for three medications [10]. In our study group, approximately 15% of the patients were receiving multiple antipsychotic medications. These data were not meant for comparison since the medical situation and health care system in Palestine is distantly different from that in European countries. No published data regarding the use of antipsychotic in neighboring countries is available to truly compare with the situation in Palestine. There is no theoretical rationale or clinical evidence base to support the co-prescription antipsychotic drugs. In fact, high dose antipsychotics are recognized as presenting substantial physical risk, and there are cumbersome guidelines regarding their use. Furthermore, multiple antipsychotics clearly increase the overall dose and the probability of side effects and interactions [11]. A major limitation on the interpretation of our data is the lack of data on the mean duration of combination antipsychotic therapy. Reasons for this lack of information is that (2) the medical files in the Al-Makhfeh clinic do not always state dates of initiation and discontinuation of therapy very clearly and (2) patients are not always followed up since a lot of patients might fail to attend to clinic for evaluation due to security reasons. Other possible reason for failure of patient's follow up is the fact that some patients might flip flop between private and governmental clinics without anybody keeping record of that. This piece of data regarding duration of therapy is especially relevant in light of the risk of exposure to tardive dyskinesia. In our study, approximately 10% (13/124) of the patients were receiving depot antipsychotic medications. This is comparable to that seen in USA (5 - 30%) but lesser than that seen in European countries (44%)[12-15]. Finally, only 56.5% of the patients taking conventional antipsychotic medications were prescribed anticholinergic agents as protective against extrapyramidal side effects of the neuroleptic drugs. Trihexyphenidyl (Artane®) was the only anticholinergic drug prescribed by psychiatrists in Al-Makhfeh clinic. This underutilization of the protective anticholinergic medications to be co-prescribed with typical antipychotics increases the risk of extrapyramidal side effects and other toxicities. There is a need to review the rationality and appropriateness of the use of psychotic medications at the Palestinian national level.

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