

Antipsychotic Treatment and Deep Vein Thrombosis: A Clinical Case

Fouad LABOUDI¹, Mohamed Essaid GOURANI², Abderrazzak OUANASS³

^{1,3}Psychiatric Emergency Department, University Hospital Psychiatric Ar-razi, Salé, Faculty of Medicine and Pharmacy, Mohammed V University, Rabat, Morocco

²Psychiatry Department, Ouarzazate, Faculty of Medicine and Pharmacy, Mohammed V University, Rabat, Morocco

Abstract: *Deep venous thrombosis is a common condition, the severity of which is related to the occurrence of a life-threatening pulmonary embolism. It has several serious complications that can include the risk of recurrence and the onset of post-thrombotic syndrome. In the literature, a relatively high rate of venous thrombosis is reported in patients on antipsychotics, so practitioners must be vigilant in taking antipsychotics, which is at risk of venous thrombosis, the risk of which increases in case of altering disease Patient or surgery.*

Keywords: Deep venous thrombosis, antipsychotics, illness, bed rest

1. Introduction

Deep vein thrombosis is a common condition whose severity is related to the occurrence of a pulmonary embolism that can be fatal. Its late complications are represented by the risk of recurrence and the occurrence of post-thrombotic syndrome [1].

The literature suggests the relatively high rate of venous thrombosis in psychiatric patients on antipsychotics [2]. Clinicians should consider that antipsychotics pose a potential risk of venous thrombosis also the diagnosis of an affective disorder appears to increase the risk [3].

This risk is increased in case of disease alleviating the patient or surgery. We report a new observation of deep vein thrombosis during antipsychotic treatment.

2. Clinical Case

This is a 56-year-old patient, who has been known to be a chronic tobacco addict for 30 years, arrested a few months ago, who has been in psychiatry since 1989 for the diagnosis of bipolar I disorder under different treatments (neuroleptics and mood regulators). It was put under Risperidone 1mg /day and Carbamazepine 800mg /day for one month.

The patient had a severe lung infection requiring hospitalization in the intensive care unit and bed rest for 20 days. The patient presented during his stay at resuscitation a pain syndrome of the lower limbs and a hard right calf, but without any joint swelling. Joint mobility's were normal. The biological examination found a normal blood count, normal renal function, and normal prothrombin level. An assay of the D-dimer was carried out urgently made it possible to establish the diagnosis. The Medical ultrasound reported deep vein thrombosis extended to the posterior tibial vein and the common popliteal vein, without extension to the sacro-lateral iliac vein. The patient was put on Enoxaparin 0.6 CC x 2 / day Acenocoumarol 2 mg / day with INR 1.29 after 15 days and without respiratory signs.

The search for risk factors has found an antipsychotic treatment that is Risperidone, the central venous route, severe pulmonary infection, prolonged bed rest and immobilization. But did not find obesity, history of venous thromboembolism, history of surgery, trauma, evolving cancer, inflammatory rheumatism, antiphospholipid syndrome, nephrotic syndrome, myeloproliferative disorder, Behçet's disease, varicose veins, superficial vein thrombosis, congenital malformation, prolonged stroke, paralysis, tamoxifen, and thalidomide.

The etiological diagnosis did not find any abnormalities in hemostasis, systemic disease or cancer. Psychiatrically he was put on Haloperidol 6mg /day and Oxcarbazepine 300mg /day with a good evolution.

3. Discussion

Deep venous Thrombosis is a serious, possible life threatening. It is a common condition whose severity is related to the occurrence of a pulmonary embolism that can be fatal.

The association between risk for deep vein thrombosis and pulmonary embolism and antipsychotic medication has been reported since the introduction of first-generation antipsychotic drugs in the 1950s [4]. Its implications for clinical practice have not been completely clarified. The association between the use of antipsychotics and the risk of venous thrombosis is especially marked in new users and the prescription of atypical antipsychotics [5]. The causality of this association and its risk factors have not been fully elucidated.

The therapeutic choice of Haloperidol as an antipsychotic is based on the fact that Risperidone is among the antipsychotics at high risk of venous thrombosis besides: Alimemazine, Benperidol, Bromperidol, Clopenthixol, Chlorpromazine, Clothiapine, Dixyrazine, Flupenthixol, Fluphenazine, Fluspirilene, Haloperidol, Penfluridol, Perazine, Perphenazine, Pimozide, Thioridazine, Trifluoperazine, Trifluoperidol and Zuclopenthixol.

The low-risk antipsychotics are: Chlorprothixene, Levomepromazine, Melperone, Pipamperone, Promethazine, Promazine and Lprothipendyl.

cases report. DARU Journal of Pharmaceutical Sciences 2012;20:71.

The main difficulty of deep vein thrombosis is its main complication, which is pulmonary embolism, which is life-threatening.

The risk of deep vein thrombosis exists in newly or formerly prescribed atypical antipsychotic patients, with or without pre-existing risk factors [6]. For several years, the treatment is based on low molecular weight heparins rapidly replaced by an oral anticoagulant and vitamin K antagonist.

In addition to drug treatment, it is necessary to combine: elastic restraint, preventive measures on risk factors and education of the patient concerning treatment, which is not always easy in case of psychiatric illness.

4. Conclusion

Deep vein thrombosis is a common condition that can occur either in patients newly put on antipsychotic or old. Therefore, taking antipsychotic drugs requires strict supervision and early and well-adapted management is essential.

Ethics approval and consent to participate: Not applicable in this section.

Consent for publication: the authors have consent from the patient to publish.

No Competing Interests.

Authors' Contributions: All the authors have contributed to the manuscript.

References

- [1] Delsart D., Girard G., Moulin N., Rivron-Guillot K., Décousus H. Thrombose veineuse : diagnostic et traitement. EMC (Elsevier Masson SAS, Paris), Médecine d'urgence, 25-190-A-10, 2007.
- [2] Allenet B., Schmidlin S., Genty C., Bosson J-L, Antipsychotic drugs and risk of pulmonary embolism, Pharmacoeconomics and drug safety, 2012; 21: 42–48
- [3] Letmaier M., Grohmann R., Kren C., Toto S., Bleich S., Engel R., Gary T, Papageorgiou K., Konstantinidis A., Holl A K., Painold A., Kasper S., Venous thromboembolism during treatment with antipsychotics - results of a drug surveillance program, The World Journal of Biological Psychiatry, World J Biol Psychiatry. 2017 Feb 28:1-12.
- [4] Shulman M., Njoku J., Manu P., Thrombotic complications of treatment with antipsychotic drugs, Minerva Med. 2013 Apr;104(2):175-84.
- [5] Parker C., Coupland C., Hippisley-Cox J., Antipsychotic drugs and risk of venous thromboembolism: nested case-control study, BMJ. 2010 Sep 21;341:c4245.
- [6] Sheikhmoonesi and BahariSaravi: Deep venous thrombosis and atypical antipsychotics: three