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DEPRESSION AND SEXUALITY

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SUMMARY

Introduction: *Affective disorders are commonly considered as specific psychiatric disorders treated with antidepressants and psychotherapy without links with sexotherapy.*

Method: *A non exhaustive literature review was conducted in the field of sexual medicine and sex therapy as well as in the field of affective disorders.*

Results: *There is a strong link between depression and sexual dysfunctions; moreover sexual dysfunction is an important underestimated adverse effect of certain antidepressant drugs.*

Discussion: *There is an urgent need to make psychiatrists and psychologists aware of the importance of the sexual life of their patients. They should learn to investigate and treat the sexual dysfunctions while assessing and treating the depression symptoms.*

Moreover they must be aware about the sexual adverse effects of many commonly used antidepressants drugs, especially SSRIs.

Conclusion: *The multi factorial origin of both depression and sexual dysfunctions suggests that the right approach and treatment of the depressed patient includes not only the prescription of an antidepressant but also a global approach based on several axis that are concomitants namely: physiological, cognitive, emotional, behavioural and relational factors.*

Key words: *sexual dysfunction – SSRI - serotonin and noradrenalin reuptake inhibitors*

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Introduction

Sexuality is an important part of quality of life and dysfunctions of it may therefore lead to much suffering in the individual and relational life.

Sexual dysfunction (SD) can be divided into 3 phases reflecting the disruption in the sequential aspects of the normal sexual response cycle of sexual desire, arousal (including clitoral engorgement and lubrification in women and erectile function in men) and orgasm (DSM-IV, 1994).

Sexual dysfunction is often associated with psychiatric diseases in particularly, mood and anxiety disorders (Labatte et al. 2001).

A bridge between sexual medicine and psychiatric studies

Correlations have been clearly established between SD and depressive thoughts.

In Gitlin's sample (Gitlin 1995), 70% of depressed individuals have S.D. However, it is difficult to know if it is actually depression which affects sexuality or, on the contrary, if the lack of sexual desire and sexual satisfaction, together the so created marital tension, contribute to the development of depressive thoughts.

A positive correlation exists between enthusiasm, happiness, well-being and sexuality whilst pessimistic thoughts and a negative view of live makes sexuality worse (De Sutter 2009).

A lack of sexual fantasies (fantasies and imagination in general are inhibited in depression!) and mental representations of a sexual nature are also one of the cognitive factors which can have a powerful effect on sexuality.

Depression is linked with brain modifications (neurotransmitters, modification of receptors and even of neurones) (Stahl 2000; Duric 2005). The role of the brain in integrating sensoriality, erotic attention and motivation is widely recognised (Rowland, 2006). The cerebral cortex, the limbic and endocrine systems play an important role in sexual functioning which is adjusted by the interaction between an arousal centre sensitive to dopamine and an inhibition centre sensitive to serotonin (Pfaus, 2009).

The hormones are influenced by the brain, but also influence it in return. Oestrogens improve the sense of perception of touch and the sensation of vibration. Oestrogens also interact positively with dopamine which has a major impact on sexual behaviour and motivation. Androgens play a major role in both genders in activating and maintaining sexual desire (Tuiten et al. 2000). Another hormone, prolactin, produces the opposite effect and may inhibit sexuality if present in too great a quantity in the body (Paney 2010).

Depression is very commonly seen in patients who seek sexual therapy. Sexual dysfunctions can either be the cause of depression or appear as the result of pre-existing depression. The clinician must distinguish between these two sequential relationships and guide his interventions accordingly (Kaplan 1974).

In general, a mild reactive depression such as the one provoked by sexual inadequacy does not preclude successful sexual therapy that can even relieve the depression symptoms (Hubin 2010). However when depression is the cause of low interest in either gender or of impotence in men and orgasmic difficulties in women, the sexual therapy must include the treatment of the depression (antidepressant medication and specific psychotherapy).

In that case, the prognosis for sex therapy alone is indeed probably poor since depression impairs libido and responsiveness to sexual arousal. The depressed patient loses his appetite, suffers from constipation and sleep disturbance, experiences a slowing of mentation and movement and is impaired in other vital functions. Not surprisingly depression extinguishes libido, makes the person resistant to arousal, and may actually impair the physiological vasocongestive sexual response. Erection in the male is especially vulnerable to depression. There is some evidence to indicate that endocrine as well as psychological factors may play a role in the diminished sexuality of depressed patients. However, premature ejaculation in men and vaginismus in women do not seem to be influenced by depression.

Many depressions are clearly reactions to specific losses, frustrations and defeats which assault the patient's self-esteem. Pharmacology is considered to be the essential treatment in depression although concomitant psychotherapy is very helpful in reactive depressions. Unfortunately, very few psychotherapists ask questions about the patient's sexual life. Sexual function must be specifically investigated through direct inquiry or sexual scales, as the depressed patient, if not directly questioned, tends to underreport sexual dysfunctions (Serreti et al. 2009).

Since Freud, psychiatrists have not been interested in sexology. Paradoxically only biological psychiatrists have a growing interest in sexuality - initially because of side effects of pharmacotherapy.

What about drugs ?

The first generation of antidepressants, tricyclics and monoamine oxidase inhibitors, are associated with sedation, weight gain and anticholinergic, as well as with cardiac and potentially lethal adverse events. When these were predominantly prescribed, greater attention was given to the dangerous adverse affects. Nonetheless, when new drugs with a safer profile, such as selective serotonin inhibitors (SSRI), where developed and became largely available, greater attention was paid to previously unconsidered adverse effects, in particular, to sexual dysfunction.

Unfortunately, despite the increasing interest in sexual adverse effects, early studies underestimated the real prevalence of SD among newer antidepressants (Clayton 2002).

In a meta- analysis (Serretti 2009) quantifies treatment-emergent SD associated with presently used antidepressant therapies was assessed on the basis only of selected papers that specifically investigated this type of side effect. He found that citalopram, fluoxetine, paroxetine, sertraline and venlafaxine showed the highest rates of total SD. On the other hand, bupropion, mitrazapine, moclobemide and nefazodone showed a low percentage of SD that was comparable or inferior to placebo.

Regarding differences in SD between men and women, the data of Serretti showed that men had significantly higher rates of desire and orgasm dysfunctions compared with women. Women, surprisingly, seemed to have higher arousal dysfunction than men, apart from a non significant difference found for venlafaxine. This last compound seems to be more neutral.

Antidepressants and sexuality

- TCAs: ↘ reduce sexual desire, arousal, orgasm delayed and painful ejaculation
  - directly: linked to specific receptor subtypes,
  - Indirectly: due to weight gain, dryness of mucous membranes, ↘ reduced semen volume,
- MAOIs: idem
- SSRIs ↘, dose-dependent: paroxétine, sertraline, fluoxétine, citalopram: orgasmic and ejaculatory problems
- SSRI: Trazodone: OK (!priapism)
- RIMA: moclobémide: OK, ↗
- NARI: reboxétine: OK
- Bupropion (N+dopamine reuptake inhibitor): ↗
- NASSA: mirtazapine: OK
- SNRI: venlafaxine: ↘; duloxetine = neutral

Of course, the clinicians can not use the absence of side effects of a molecule as their predominant criterion of choice. They should carefully balance side effects and efficiency (Zdanowicz et al. 2007). In case of sexual side effect on sexuality, with SSRIs, is there a reverse therapy on the horizon?

We propose several strategies:

- ↘ reduce the dosage
- Waiting (tolerance)
- Changing timing (taking the pill after is better than before intercourse…)
- Changing the drug to a less sexual damaging substance
- 1 to 2 day-drug holiday (week-end)
- Muscaran ® (parasympathicomimetic) 10 à 40mg
- Amantadine Amantan ® 2x100 mg
- Yohimbine. Methylphenidate (psychostimulant)
- Trazolan ®, Bupropion (Wellbutrin XR®)
- PDE5 inhibitors: Viagra ® Sildenafil (T½: 6H.), Cialis ® Tadalafil (T1/2: 17,5h), Levitra ® Vardenafil (T1/2: 4,5h)

Clinical perspective

We mentioned the multiple interactions between sexuality, depression and antidepressant drugs. Because of these, the need for appraising sexuality has become greater for clinicians.

As clinicians, we indeed to collect much information from the patients about their illness, their affective relationship and their social support.

We also need to obtain a better adhesion to the psychotherapeutic treatment (transference) and the pharmacologic treatment (compliance).

To summarize this paper it seems important in psychiatry to make a global approach involving the notion of quality of life. The need is great to speak and listen about the sexuality of our patients. We must propose adequate drug therapy and inform the patient about side effects.

If necessary, we can prescribe adjuvant therapy like PDE5i.

Moreover we must be able to integrate the patient's partner in the therapy and sometimes propose a real couple sexotherapy.

Conclusions

When considering a medical history, the awareness of the interaction between sexual life and affective disorders allows the clinicians to assess both sadness and physical symptoms concomitant with depression but also all the elements responsible for sexual dysfunction. They will then naturally adapt their treatments, including pharmacotherapy, to the global suffering of their patients.

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