

CASE REPORT

Attention-Deficit Hyperactive Disorder (ADHD) Presenting with Major Depression in an Adolescent: A Case Report.

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ABSTRAK

Kemurungan major adalah sejenis penyakit mental yang perlu diberikan perhatian kerana ianya boleh mengancam nyawa pesakit, apabila pesakit mempunyai keinginan untuk membunuh diri. Laporan kes ini adalah mengenai seorang remaja yang mengalami kemurungan major disamping menderita kecelaruan hiperaktif kurang daya tumpuan (ADHD), yang tidak pernah dikesan sebelum ini. Kami melaporkan kes remaja berumur 17 tahun yang datang ke klinik dengan gejala psikosomatik iaitu sakit di bahagian kiri dada yang berpanjangan. Beliau juga dikesan mempunyai gejala kemurungan major dan keinginan membunuh diri. Penyakit ADHD beliau tidak dapat dikesan awal. Artikel ini membincangkan mengenai kesukaran untuk mendiagnosis penyakit ADHD ketika remaja kerana pada umur tersebut mereka tidak mempunyai gejala tipikal yang dialami oleh kanak-kanak kecil.

Kata kunci: kemurungan, kecelaruan hiperaktif kurang daya tumpuan, remaja

ABSTRACT

Major depressive disorder is an important psychiatric illness that can be a life-threatening condition when it presents with suicidality. This case report describes an adolescent who presented with major depressive disorder but with an underlying undiagnosed attention deficit hyperactive disorder (ADHD). The 17-year-old male adolescent presented with psychosomatic complaint of non-resolving left sided

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chest pain. He also had major depressive symptoms and suicidal ideation. His ADHD was being missed. This case highlights the difficulty of diagnosing ADHD during adolescence as the presentation may not be as typical as during early-childhood years.

Keywords: adolescent, attention deficit hyperactive disorder, depression

INTRODUCTION

Nearly half of Malaysian adolescents have depressive symptoms (Ibrahim et al. 2014; Abdul Latiff et al. 2016). Depression in adolescents can be attributed to multiple factors such as changes in lifestyle related to modernization, academic pressure or financial difficulties, untreated childhood mental-health problem, parental depression and family discord (Brent & Maalouf 2015; Abdul Latiff et al. 2016; Twenge et al. 2018). Poorly treated cases will succumb to debilitating complications such as illicit drug dependence, academic failures and suicide (Brent & Maalouf 2015). On the other hand, about 50% of children with attention deficit hyperactive disorder (ADHD) may have persistence symptoms in adolescence (Halperin et al. 2008). The clinical manifestations during adolescence may not be similar as during the early childhood years. Instead, they may present with comorbid conditions such as depression, anxiety, conduct disorder and oppositional defiant disorder (Sonuga-Barke & Taylor 2015). The aim of the present case report is to describe the case of a 17-year-old adolescent with undiagnosed ADHD who came from a poor

family background that eventually involved many social problems such as substance abuse, unsafe sexual activity, poor academic performance and later, major depressive disorder.

CASE REPORT

A 17-year-old adolescent male, from a lower socio-economic background presented with intermittent left sided chest pain for a year, with poor response to the analgesics. Often, the pain was precipitated by arguments with his mother over his poor school performance or activities with friends. His was unable to focus on his studies and preferred loitering around with his friends until late at night. On the other hand, his mother was concerned about the coming Malaysian Certificate Examination, and wanted him to spend more time studying at home. She went to the extent of involving the neighbours and even police to search for him and brought him home when he was late. In consequence, he felt overwhelmed with his mother's constant nagging and monitoring him. This had caused resentment towards his mother and often, would trigger suicidal thoughts and self-harm behavior. He felt by harming himself i.e. putting a hot burnt melting plastic on his hand that would

ease his emotional pain and stress. The last attempt of self-harm was few days prior to the clinic visit in which he stabbed his abdomen with a knife. Occasionally, he felt of dying and there was once he nearly jumped from 18th floor apartment.

Further questioning revealed that he had past psychiatric history. When he was 13-years-old, he was brought for assessment of learning difficulty. He was reported to be inattentive, easily distracted, having difficulty accomplishing his schoolwork and needed close supervision to complete assignments. Often his schoolwork would be messy and disorganized. In addition, he was also noticed to have depressive symptoms such as poor sleep, poor concentration, feeling useless and helpless. Based on the clinical presentation at the time, ADHD was considered and efforts were made to get more information from his schoolteachers. However, due to family circumstances, he was lost to medical follow-up without completing the assessment and receiving any intervention. Over the years, he also displayed conduct symptoms such as involved in physical fighting, bullying, smoking cigarettes, using methamphetamine and practising unsafe sex. He owned a hand phone but denied prolonged use of online games. He was the third of five siblings and lived with his family in a small apartment in Kuala Lumpur. He came from a low-income family in which his mother owned a food stall and father worked as a security guard.

During the current consultation, he was calm and cooperative with limited

eye contact. He appeared depressed with coherent and relevant thought process. He was not suicidal and had no perceptual disturbance. There was no fidgeting or abnormal movement and he was cooperative and could sit still throughout the examination. His blood pressure, pulse rate and heart examination were normal. Chest examination was also normal except for tenderness at the left upper chest. Resting electrocardiogram was normal. Based on his clinical presentation on that day, a diagnosis of major depressive disorder was made and he was admitted to the Psychiatric Ward on the same day. Blood investigations were normal and urine investigations for drugs (amphetamine, benzodiazepine, opiate and cannabis) were negative. After two weeks of admission, he was discharged with the prescribed drug Quetiapine 100mg daily.

DISCUSSION

ADHD is a neurocognitive behavioural problem and children with the condition exhibit the symptoms of inattention, impulsivity and hyperactivity, regardless of time and place. However, ADHD presentation changes with time and less than 50% of them may have persistent symptoms during adolescence and adulthood (Epstein & Loren 2013; Halperin et al. 2008; Sibley et al. 2012). Reduction in symptoms is related to improvement in executive functioning by the prefrontal area (Halperin et al. 2008). They learnt to control their behaviour and make the diagnosis a challenge. On the

other hand, their academic attainment and social development may be affected and they may present with school failure, poor family and peer relations, low self-esteem, emotional problems (such as depression and dysthymia), behavioural problems (such as oppositional defiant disorder and conduct disorder) and substance abuse (Hurtig et al. 2007).

The patient in this present case, never received medical attention until he was 13-years, when he presented with ADHD symptoms (inattention, disorganized and was easily distracted) and complications of ADHD such as school truancy, learning difficulty and depressed mood. In some children, the ADHD is detected during school years when there is a demand for academic achievement and self-control behavior. Due to their short attention span, they are easily distracted and lose their focus and concentration. They are unable to enjoy conventional didactic teaching and prefer to be out of school to learn new things. They have problems in controlling their behaviour and hence are usually isolated, teased or bullied. It is common for ADHD children to be bullied or be the bullies (Becker et al. 2017; Ismail et al. 2010).

When he presented again at the age of 17-years with major depressive disorder, the symptoms of ADHD (i.e. inattention, hyperactivity and impulsivity) were no longer obvious. His impulsivity of self-harming and arguing with his mother were thought to be related to his depressed mood. At his age, the typical hyperactivity as in young children may not be present but some may be restless and fidgeting

during consultation. However, he did not have any of these symptoms and without the retrospective history of ADHD symptoms and its complications during the younger years, the diagnosis of ADHD was less obvious. ADHD tends to be under-diagnosed in older children (Sayal 2018). He had been involved in risky behaviours such as unsafe sex, cigarette smoking and illicit drug use which are common in adolescents with ADHD. They are also likely to face social, emotional and psychological difficulties. They tend to have problems in academic, poor social functioning, low self-esteem and difficulty in controlling their emotions. ADHD is a condition with multiple comorbid conditions commonly depression and anxiety, oppositional defiant disorder and conduct disorder as seen in this case. This pose a challenge of diagnosing ADHD in adolescents as seen in the present case, as they tend to present with the symptoms of the comorbid conditions rather than the ADHD symptoms.

It is recommended for primary care physician to screen for ADHD in any children who present with academic difficulty or behavioural problems (Wolraich et al. 2011). A thorough history covering important areas that include Home, Education, Activity, Depression, Drug use, Sex and Sexuality (HEADSS) may uncover many hidden behaviours. Having collateral and retrospective history from parents, school teachers, adults or even friends may assist the doctor in making diagnosis. The report needs to be detail, starting from early childhood

years and to include the person's academic, social and emotional functioning. In diagnosing ADHD in adolescents, the inattentiveness or hyperactive-impulsive symptoms should be present during childhood in at least two different settings and affecting the person's academic, social and occupational functioning in the absence of other psychiatric illness or mental disorder (Felt et al. 2014).

It is the responsibility of the attending physician to formulate the diagnosis judiciously from multiple informants bearing in mind, the multiple sources of information can be poorly correlated (Wan Salwina et al. 2013). Parental report is more reliable than self-report since adolescents with ADHD may minimize their symptoms (Sibley et al. 2012) or make up the symptoms in order to have the 'special treatment' such as extra time for assignment, reduce homework, having extra notes from teachers and being prescribed with stimulants (Sollman et al. 2010). Hence, stressing the importance of having a thorough history from multiple informants to be able to make an accurate diagnosis. In addition, direct observation and assessment of the person's behaviour by the attending physician may further increase the reliability of the diagnosis. Adolescents with ADHD are found to be associated with internalizing symptoms such as anxiety and depression, as well as having a poorer quality of life. The impulsivity in them may cause academic difficulty, relational problems with friends and substance abuse (Pan and Yeh 2017), as seen in this adolescent. Hence,

it is paramount important that the ADHD symptoms are recognized and detected early.

In general, the main stay of treatment for ADHD is stimulants such as methylphenidate and amphetamine (Felt et al. 2014; Sonuga-Barke & Taylor 2015). These medications act to boost dopamine and norepinephrine level in the brain and this patient may benefit from this treatment if the diagnosis of ADHD was made earlier. In the presence of comorbidities such as depression and anxiety, an antidepressant such as Selective Serotonin Reuptake inhibitor (SSRI) may have a role to treat the comorbid conditions. In this case, a SSRI may be started in addition to the medications for ADHD, to treat the comorbid depression. Another promising medication is bupropion and its use in the management of ADHD with comorbid depression among adult patients was shown in a local study (Tha et al. 2019). Bupropion was also reported to be effective as an anxiety and mood regulating medication in a young adult with ADHD (Maszaidi et al. 2017). Its dual inhibitors i.e. norepinephrine (NA) and dopamine (DA) reuptake inhibitors (NDRIs), modulate the reward-pleasure mesolimbic dopaminergic system as well as regulating the mood (Tha et al. 2019). However, its used in adolescents are still limited (Brent & Malouf 2015; Sonuga-Barke & Taylor 2015). The patient in the present case was prescribed quetiapine, an atypical antipsychotic and its use as a monotherapy for major depression is promising but needs to be used

judiciously due to its side-effects (Zhou et al. 2015).

CONCLUSION

Family physicians play an important role in detecting ADHD cases as they are the first contact person. Due to the nature of the condition, symptoms change over the various developmental stages and maybe unnoticeable during the adolescent period. Instead, they may present with comorbid conditions such as emotional problems such as depression, anxiety, oppositional defiant disorder or conduct disorder. In these instances, having retrospective and collateral history from parents and significant others may assist in the diagnosis. The challenge of having the correct diagnosis was even more as patients presented with a somatic complaints rather than behavioural or psychological problems. Once the correct diagnosis is made, it is important to make the adolescents and their parents understand and accept the diagnosis, ready for treatment and follow up in order to minimize the risky behaviours and emotional problems in the future. ADHD affects the whole life span of a person albeit at different intensity and thus continuity of care is paramount importance. It is assumed that the present case may alert many of us, especially the family physicians on the importance of diagnosing ADHD in at-risk adolescents.

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