Alcohol Related Brain Damage; development of a care pathway

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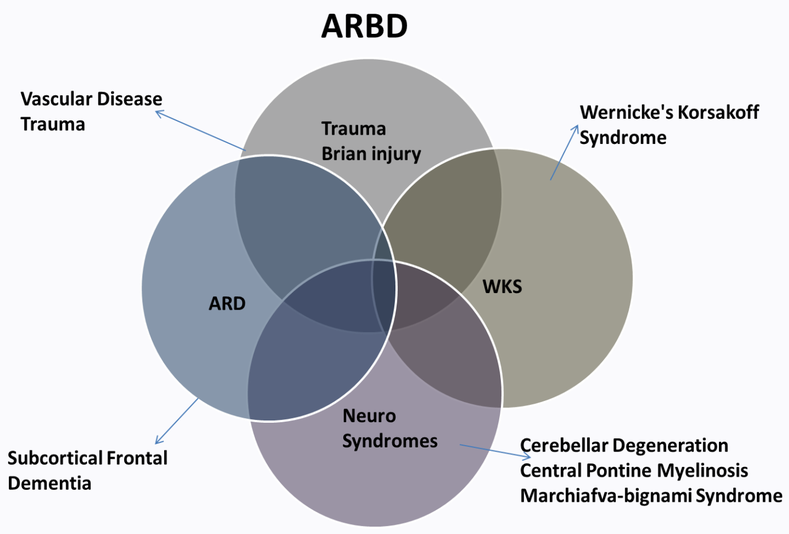
Introduction

Alcohol-related brain damage (ARBD) is an umbrella term that accommodates the various psychoneurological/ cognitive conditions that are associated with long-term alcohol misuse and related vitamin deficiencies (RCP, 2014). Although ARBD is well known and understood, it is significantly underdiagnosed (Wilson, 2014).

In UK It is estimated that 0.5% of the general population have brain changes due to alcohol misuse. The prevalence may rise to as much as 30% in heavy and long-term drinking populations. It is described as the 21st century silent epidemic (Wilson, 2014).

Figure 1. ARBD subtypes



Why is it important?

Alcohol-related harm/disorders are on the rise and this is placing increasing demands on the NHS and social care. In recent years, there has been 104.6% increase in alcohol-related Emergency Department attendances and an 143.3% increase in elective admissions to hospital. There has also been a 53.9% increase in emergency admission to hospitals and death from liver disease has increased by 400% (Currie, Davies, Blunt, Ariti & Bardsley, 2015).

Harmful and chronic use of alcohol results in a variety of physical and mental health problems such as liver disease, gastrointestinal disorders, cancer, depression, anxiety and psychosis.

Chronic problems

While alcohol can have a temporary positive impact on our mood, it can cause major mental health problems in the long term and can seriously effect our bodies (Drinkaware, 2016).

Chronic problems caused by excessive alcohol consumption

- Cardiomyopathy
- Liver disease
- Ataxia
- Osteoporosis
- Peripheral Neuropathy
- Impotence
- Gastrointestinal Ulcers
- Carcinoma
- Depression & anxiety
- Psychosis
- ARBD
- Wernicke-Korsakoff Syndrome
- Vascular, multi-infarct

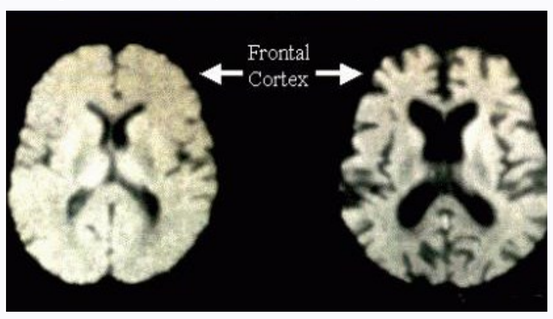
Prognosis of ARBD

Cognitive state is likely to improve in a few weeks. After 3–6 weeks of abstinence, recovery appears to level off, with the most significant gains being made during this period. In terms of outcome that 25% of patients with ARBD make a full recovery. A further 25% make a partial recovery, with another 25% making minor recovery and the rest no recovery at all (Cox, Anderson & McCabe, 2004).

Institutional care should also be considered in some cases as it is evident that small units offering personalised care planning and rehabilitation show good outcomes.

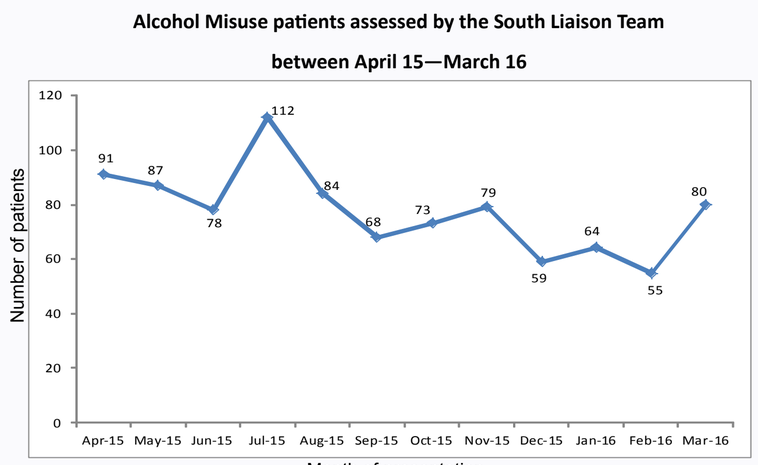
Figure 2. Wood, B. (2014) Frontal cortex atrophy in alcoholism

Typical brain



Brain with effects of excessive alcohol consumption

Presentations to RDH



Current developments

The Liaison Team are currently exploring feasibility of a pathway/ service dedicated to providing a quick, safe and cost-effective service. The aims of such a service would be:

- Early assessment and diagnosis
- Identification of suitable placements for rehabilitation
- Joint working
- Follow-up assessments
- Reduction in length of stay
- Training for professionals in contact with ARBD patients

- Multidisciplinary steering group

The Liaison Team have identified a group of professionals that are supporting the development of a care pathway for people with ARBD. A multidisciplinary approach for the management of patients with alcohol misuse problems has proven to be effective (Gitto et al 2016).

This has led to the formation of a multidisciplinary steering group. The group was set up in September 2016 and they meet up quarterly.

The steering group consists of clinicians from the Hepatology team, Occupational Therapists, staff from the North and South Derbyshire Liaison Team, Consultant Psychiatrists, Rehabilitation Medicine, staff working in Brain Injury, Clinical Psychologists and a Researcher.

- Education and Training to hospital colleagues

Regular training is provided to acute hospital colleagues on Addictions including alcohol dependence .

- Assessment and identification of ARBD cases

Currently, a total of 49 patients have been identified; 4% of these have been identified as having a prolonged stay at hospital or have died. Prolonged stays at the hospital can vary from a few weeks to 4-5 months.

Figure 3. Sub diagnosis of patients with ARBD at the Royal Derby Hospital (RDH)

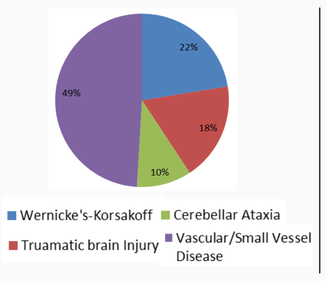


Figure 4. Gender of patients with ARBD at RDH

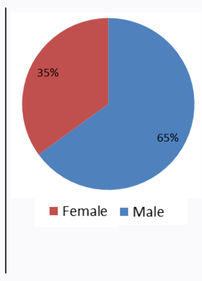
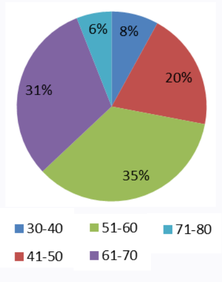


Figure 5. Age group of patients with ARBD at RDH



The highest prevalence of ARBD cases at RDH is found between the ages of 50 and 60 which is consistent with other findings (MacRae & Cox, 2003). However, trends indicate that younger people are being exposed to more alcohol earlier in life consequently this has potential health implications (BMA Board of Science, 2008).

- Other developments

- In the process of putting forward a business case for further funding
- RDH wards now recognise the lack of services for ARBD patients and are therefore looking into creating a 10 bed unit for them
- Social housing that meets certain standards are being considered as a service for patients with ARBD

Vignette

40 year lady with history of heavy drinking was admitted to Royal Derby hospital with confusion in **September 2015.** She presented with triad of confusion, nystagmus and ataxia. She believed that she had just returned from a holiday although it was one year ago. She was confabulating and constantly looking for her dog on the ward. On initial cognitive assessment she scored 17/30 on MOCA (Montreal Cognitive Assessment).

She was diagnosed with Wernicke's-Korsakoff syndrome and treated with Chlordiazepoxide detox and extended high dose Pabrinex. Her physical symptoms resolved relatively quickly however cognitive impairment persisted. She was transferred to Kings Lodge Rehabilitation where she has shown steady improvement and **remained there for quite some time**. There was an improvement in cognition with repeat MOCA of 23/30. Trial discharge home failed due to poor functioning. Further specialist rehabilitation was secure after a considerable delay due to funding.

Challenges

- Insufficient data and under diagnosis.
- Stigma and poor understanding of the problems.
- Lack of guidance and service provisions.
- ARBD is on the rise and younger adults are increasingly affected.

Future Directions

- Urgent need to develop a pathway
- Raising awareness and prevention
- Close working partnership with physical and mental health providers.
- Robust data gathering
- Clear management and care plan
- Training all relevant professionals, families, care homes and service users.

Summary points

- ARBD is a health epidemic which is currently underdiagnosed. Research and clinical health records on ARBD are scarce which means that there is a lack of data and research; this heavily impacts on the lack of national guidelines, commissioned services and professional guidance.
- Difficulties in managing patients with ARBD are based around the lack of expertise in this field, the associated stigma and poor understanding of people with ARBD and the lack of guidance/ service provision.
- There are a lack of pathways for patients with ARBD, consequently Derbyshire Healthcare NHS Foundation Trust's future directions include developing pathway/service for patients presenting to hospital with ARBD and ensuring that their needs are met.
- There is a need for robust data gathering to inform future clinical management of patients with ARBD.

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