# Nandakishor s/o Raj Pat Ahir *v* Public Prosecutor
# [2014] SGHC 121

**Case Number** : Magistrate's Appeal No 298/2012/01

**Decision Date** : 26 June 2014

**Tribunal/Court** : High Court

**Coram** : Tay Yong Kwang J

**Counsel Name(s)** : S.K. Kumar (S K Kumar Law Practice LLP) for the Appellant; Samuel Chua and Teo Lu Jia (Attorney-General's Chambers) for the Respondent

**Parties** : Nandakishor s/o Raj Pat Ahir — Public Prosecutor

*Criminal Law – Statutory Offences – Misuse of Drugs Act*

26 June 2014

**Tay Yong Kwang J:**

**Introduction**

1 The appellant, Nandakishor S/O Raj Pat Ahir ("the Appellant"), was charged with an offence under s 8(*b*)(ii) and punishable under s 33A(2) of the Misuse of Drugs Act (Cap 185, 2008 Rev Ed) ("MDA"). He claimed trial to the charge (commonly referred to as a "LT-2" or Long Term 2 charge) which attracted enhanced punishment as he had already been convicted under s 33A(1) of the MDA on 2 November 2006 on two drug consumption charges ("LT-1" or Long Term 1) as a result of his drug-related antecedents. He was unrepresented and conducted his own defence. The District Judge ("DJ") convicted the Appellant on the LT-2 charge and sentenced him to seven years and six months' imprisonment and six strokes of the cane.

2 The Appellant filed a notice of appeal against the conviction. However, in his petition of appeal, he stated that he was dissatisfied with the DJ's judgment on the ground that "the sentence is unreasonable". As these documents were filed by him before he had legal representation, I shall treat the appeal as one against both conviction and sentence.

3 The dispute concerned how the variance of the results of urine tests conducted under s 31(4)(*b*) of the MDA should be calculated. I heard the parties on 16 May 2014. A similar issue arose in another matter (Originating Summons No 991 of 2013 ("*Zheng Jianxing v AG*" – grounds of decision have been issued in that case at [2014] SGHC 120) that was scheduled for hearing on 26 May 2014. Mr S K Kumar, the Appellant's counsel here, is also counsel for the applicant in *Zheng Jianxing v AG.* I therefore reserved judgment in this appeal pending the determination of *Zheng Jianxing v AG*. The parties attended before me again on 26 May 2014 immediately after the hearing in *Zheng Jianxing v AG*. At that hearing, I dismissed the appeal against conviction and sentence. I now set out the grounds for my decision.

**Undisputed Facts**

4 The Appellant was arrested on 17 July 2011 and brought to Bedok Police Divisional Headquarters where he provided two bottles of his urine specimen. On 18 July 2011, the bottles containing his urine specimen were sent to the Health Sciences Authority ("HSA") for analysis under

s 31(4)(*b*) of the MDA. Mr Ong Rui Shen ("Mr Ong") and Ms Leong Huey Sze ("Ms Leong"), Analysts with the Analytical Toxicology Laboratory of HSA, analysed the Appellant's urine specimen. On 22 August 2011, Mr Ong issued a certificate pursuant to s 16 of the MDA stating that the urine sample he analysed was found to contain 564 nanograms of monoacetylmorphine per ml of urine. On the same day, Ms Leong also issued a certificate pursuant to s 16 of the MDA stating that the urine sample she analysed was found to contain 731 nanograms of monoacetylmorphine per ml of urine. Monoacetylmorphine is a specified drug listed in the Fourth Schedule of the MDA.

**Findings of the District Judge in the Trial below**

5 At trial, the Prosecution's case was that monoacetylmorphine was found in the Appellant's urine specimen because he had consumed diamorphine in contravention of s 8(*b*) of the MDA. The Appellant's defence was that his urine samples tested positive for monoacetylmorphine because he had consumed several types of medication namely, "Dhasedyl DM" (which contains Dextromethorphan), "Panaco" and "Tramadol" ("the medication defence"). The Appellant also argued that the variation in the amount of monoacetylmorphine that was found in each of his two urine samples showed that the HSA analyses were "inaccurate". [note: 1]

6 The Prosecution called Dr Lui Chi Pang ("Dr Lui"), a Senior Consultant Forensic Scientist with HSA, and Mr Ong to give evidence on the Appellant's urine sample analysis as well as to provide expert opinion on the effects of consumption of "Dhasedyl DM", "Panaco" and "Tramadol". Dr Lui and Mr Ong testified that consumption of any or all of the three medications would not have given rise to presence of monoacetylmorphine in the Appellant's urine samples. [note: 2] Mr Ong testified that only the consumption of diamorphine would have given rise to monoacetylmorphine being found in the Appellant's urine specimen. [note: 3] The Appellant did not adduce any expert evidence to dispute these scientific conclusions of the two HSA experts.

7 Mr Ong also gave evidence that there will be variations between test results as urine is a biological specimen and the detection of drugs in urine requires a multiple step procedure. [note: 4] He testified that in the present case, the variance of the results of the urine tests was 12%. [note: 5] He stated that this was well within the internationally accepted 20% limit for urine drug analyses. [note: 6]

8 The DJ held that the statutory presumption of consumption under s 22 of the MDA was triggered because of the two HSA certificates which stated that monoacetylmorphine was found in both of the Appellant's urine samples. [note: 7] Therefore the burden shifted to the Appellant to rebut the presumption that he had consumed the specified drug without authorisation. [note: 8] The DJ accepted the evidence of the HSA experts and found that the consumption of either one or a combination of the three types of medication would not, as claimed by the Appellant, result in the presence of monoacetylmorphine in his urine specimen. [note: 9] Accordingly, she rejected the Appellant's medication defence, held that he had failed to rebut the presumption of consumption [note: 10] and convicted him. [note: 11]

9 The Prosecution submitted that the Appellant should be given a sentence that is higher than the mandatory minimum because he had claimed trial and hence the mitigating factor of an early plea of guilt was absent. Further, he had shown himself to be unremorseful by maintaining the constituent facts of his medication defence in his mitigation plea. [note: 12] As mentioned earlier, the DJ sentenced the Appellant to seven years and six months' imprisonment and six strokes of the cane. The

mandatory minimum sentence prescribed by the MDA for the Appellant's offence is seven years' imprisonment and six strokes of the cane.

**Appeal against Conviction**

10 The Appellant's only contention on appeal was that the formula used to calculate the variance of the results of the urine tests was incorrect. He contended that if the correct formula had been used, it would have shown that the variance was 26%. He submitted that the Prosecution could not rely on the results of the urine tests since the variance was beyond the internationally accepted 20% limit. Without the urine test results, the presumption of consumption in s 22 of the MDA was not triggered and therefore he should be acquitted.

11 In order for the Appellant to succeed in having his conviction set aside, he has to show that:

(a) the variance of the results of the urine tests was 26%; and

(b) the prosecution cannot rely on the results of urine tests where the variance is higher than 20% for the purpose of triggering the presumption of consumption in s 22 of the MDA.

12 The method of calculating the variance of the results of the urine tests submitted by the Appellant is as follows (see paras 6 and 7 of his written submissions dated 15 May 2014):

> 6 Our calculations are as follows:-
>
> First the average of the readings is
>
> 564 + 731 = 1295 ÷ 2 = 647.5
>
> Second we take the first reading of 564 and divide it with the average
>
> 564 ÷ 647.5 = 0.87
>
> Third we take the 2nd reading of 731 ÷ 647.5 = 1.13 (corrected to the nearest decimal point)
>
> Fourthly the difference 1.13 - 0.87 = 0.26 x 100 = 26%.
>
> 7 This, in our humble submission, correctly reflects the average of the results which is the mean average. A simple understanding of the average mean is to add up all the numbers and divide by how many numbers there are.

13 The Appellant did not produce any scientific authority to explain how he had arrived at this method of calculating the variance. Instead, he submitted that this method "has been tested in previous cases and one such case before Your Honour is Tan Yong Beng's case".

14 In *Public Prosecutor v Tan Yong Beng* (DAC 14343/96; unreported judgment dated 27 January 1997) ("*Tan Yong Beng*"), Dr Lee Tong Kooi ("Dr Lee"), who was then the Head of the Narcotics Laboratory, Department of Scientific Services ("DSS"), testified that the variance of the results of the urine tests in that case was 39%. In *Tan Yong Beng*, District Judge S Thyagarajan stated at [4] that the urine sample tested by one DSS officer was found to contain 500.4 micrograms of morphine per 5 ml of urine and that the other sample tested by another DSS officer was found to contain 739.8 micrograms of morphine per 5 ml of urine. Based on the concentration levels of morphine found in the two urine analyses, the Appellant's method of calculating the variance would yield the approximately

39% variance that was put forward by Dr Lee.

15 However, *Tan Yong Beng* offers no guidance on how Dr Lee arrived at his conclusion that the variance was 39%. District Judge S Thyagarajan summarised the evidence of Dr Lee at [5] of his grounds of decision. I reproduce this paragraph in its entirety to highlight that the evidence that was led at trial related predominantly to the causes of the high variance and not how that variance was calculated.

> Dr Lee Tong Kooi, the Head of the Narcotics Laboratory, Department of Scientific Services, testified for the Prosecution. With reference to the different concentrations of morphine in the two urine specimens taken from the accused he said that there was a 39% variation and that it was outside the acceptable range. According to him 10% to 20% variation is acceptable as normal assuming everything else was equal. He explained that 10% to 20% variation is allowed because of experimental or biological factors. When asked to explain the 39% difference in the present case he said that one possible factor would be the time of collection of the urine specimens. If they were collected at different times different concentrations can result. Another factor will be the presence of water in the bottles if they had been washed but not drained after the wash. Water can dilute the urine specimens and yield different results. He also said that if excess water from the bottles had been drained off after washing but the bottles were not dried the concentration of morphine should not differ. He testified that under the Misuse of Drugs (Urine Specimens and Urine Tests) Regulations 1990 there was provision for washing the bottles but there was no provision for wiping them dry with a cloth after they had been washed. To the question asked by the Defence Counsel whether any impurity in the cloth or rag that was used to dry the bottles could contribute to the presence of morphine as well as the difference in its concentration in the specimens Dr Lee answered that if the cloth contained morphine and it was used to wipe the bottle it is possible that some of the contents of the cloth would be transferred to the bottle. He went on to say that the concentration of morphine that was being measured was a very small quantity because the concentration was in micrograms. One microgram he said would be the same as $10^6$ grams or 0.000001 grams. If the cloth had in fact been used to wipe urine that contained a high concentration of morphine or if the cloth contained heroin powder, the kind of concentrations reported in the present case by Dr Lau Ching Ong and Ann Young would be possible. Dr Lee's answers to the following questions by Counsel are also significant:
>
> NOTES OF EVIDENCE
>
> PAGE 23
>
> CROSS-EXAMINATION OF DR LAU CHING ONG
>
> Q: By drying the bottles with a piece of cloth would you say the proper procedure in taking urine sample was not complied with?
>
> A: I leave it to the court.
>
> Q: Presence of morphine and difference in concentration could have been due to the cloth?
>
> A: If the cloth was 'contaminated' as explained before, it is possible the presence of morphine and the actual concentration could be due to that.
>
> Q: How can you explain the 39% variation in the concentrations in this case?

A: External factors can explain this. If the external factors I have mentioned *ie* different times of taking the sample and dilution are ruled out, then I don't know what is causing the variation. The variation is outside the acceptable limits.

16 With this evidence, District Judge S Thyagarajan held that the variance of 39% in the urine specimens was "almost double what it should be". He noted that Dr Lee had acknowledged the possibility of contamination of the contents of the bottles by the rag or cloth that was used to wipe the bottles. He ruled that the presumption in s 22 MDA did not arise if the urine tests were unreliable. Accordingly, he acquitted the accused in that case without calling upon his defence.

17 In *Tan Yong Beng*, Dr Lee did not explain the method he used to calculate the variance. Apparently, it was calculated in the way suggested by the Appellant in the present case (see [12] above). However, this would contradict the scientific literature and practice.

18 The Prosecution produced the Forensic Toxicology Laboratory Guidelines – 2006 (published by the Society of Forensic Toxicologists and the Toxicology Section of the American Academy of Forensic Sciences) ("Forensic Toxicology Laboratory Guidelines") and referred to para 8.3.9 of the said guidelines which states:

> It is recognized that for a variety of reasons occasional analytical results will be outliers; that is, analytical values which deviate significantly and spuriously from the true value. "Outlier" results of control, blanks or calibrators should be obvious. However outlier results of case specimens may not be identified if only run singly, unless that result can be compared with one from a separate analytical determination. For this reason replicate extraction and quantitative analysis, at least in duplicate, is recommended. The laboratory should determine the acceptable criteria for replicate analysis. A maximum deviation of ±20% of the mean is recommended.

19 This explains why two separate tests on urine specimens are done and that the variance of the results of the urine tests refers to *each* test result's deviation from the mean of all the results obtained, calculated as a percentage of the mean (see also *Zheng Jianxing v AG* at [17] and [18] of the grounds of decision there for an example of how the computation is done). The Prosecution submitted that the correct method of calculating the variance should be as follows:

> Step 1: Obtain the mean (or average) of the results of the urine tests.
>
> Step 2: Calculate the value by which each test result deviates from the mean.
>
> Step 3: Divide the value obtained in Step 2 by the mean and multiply it by 100%. This is the percentage of variance.
>
> In my view, this accords with the scientific literature and with logic and is the correct method. The method espoused by the Appellant (at [12] above) adds both test results' deviation from the mean together. This amounts to double-counting which is incorrect. It is also interesting to note that Mr S K Kumar in *Zheng Jianxing v AG* adopted the method put forward by the Prosecution in this case. His response to this contradiction in approach was that it was not clear which method of computation was the correct one since Dr Lee, the then Head of the Narcotics Laboratory, did not challenge the calculation of the variance at 39% in *Tan Yong Beng.* He also submitted that the Prosecution had not cited any authority to show that its method is the only method or is the superior one. However, I reiterate that the method apparently used in *Tan Yong Beng* and which is relied upon by the Appellant here is incorrect as both deviations from the mean are added together.

20 Applying this formula to the results of the urine tests in the present case, the variance of each result is nearly 12.9%. This is within the range considered to be acceptable by the Forensic Toxicology Laboratory Guidelines. The Appellant's only ground of appeal against conviction was predicated on his contention that the variance was higher than 20%. For the reasons canvassed above, this contention was obviously erroneous. I therefore dismissed his appeal against conviction.

21 In respect of the second issue mentioned in [11](b) above, whether the prosecution can invoke s 22 MDA by relying on the results of urine tests where the variance from the mean is more than 20%, I repeat my opinion expressed in [32] of *Zheng Jianxing*.

**Appeal against Sentence**

22 The Court of Appeal stated in *Public Prosecutor v Kwong Kok Hing* [2008] 2 SLR(R) 684 at [13] – [16] that sentencing is a complex discretionary process and an appellate court should only interfere with a sentence meted out by the trial judge where it is satisfied that:

(a) the trial judge had made the wrong decision as to the proper factual matrix for sentence;

(b) the trial judge had erred in appreciating the material before him;

(c) the sentence was wrong in principle; or

(d) the sentence imposed was manifestly excessive, or manifestly inadequate.

23 In the present case, the Appellant did not make any written submissions concerning the sentence. Mr S K Kumar submitted orally that the minimum sentence provided in the MDA was "already very harsh" and that the Appellant was merely putting forward the medication defence at the trial. The Prosecution responded by saying that the Appellant raised no mitigation before the DJ and remained unremorseful even after his conviction. He was also a recalcitrant drug offender since 1994 when he was about 22 years old.

24 In my view, with the Appellant's drug-related antecedents dating back to 1994 (when he was convicted by a military court) and in the absence of mitigating factors in his favour, it can hardly be said that an imprisonment term of six months above the mandatory minimum sentence prescribed by the MDA is manifestly excessive. As there were no grounds to interfere with the sentence meted out by the DJ, I dismissed the appeal against sentence as well.

---

[note: 1] Record of Proceedings at p 43, lines 6 – 8

[note: 2] Record of Proceedings at p 32, lines 10 – 12; p 28, lines 28 – 29; p 29, lines 11 – 12, p 38, lines 3 – 6; p 40, lines 24 – 26 and p 40, lines 28 – 29

[note: 3] Record of Proceedings at p 34, lines 8 – 10

[note: 4] Record of Proceedings at p 36, lines 2 – 22

[note: 5] Record of Proceedings at p 36, line 32

[note: 6] Record of Proceedings at p 36, lines 25 – 26

[note: 7] Grounds of Decision (Record of Proceedings at pp 66 – 83) ("GD") at [32]

[note: 8] GD at [32]

[note: 9] GD at [34]

[note: 10] GD at [36]

[note: 11] GD at [36]

[note: 12] Record of Proceedings at p 64, lines 14 – 23